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Trends in Meeting Individual Differences

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Editorial

Individual Differences: A Precious Asset

INDIVIDUAL DIFFERENCES among children have sometimes been regarded as a nuisance in educational programs since they prevent uniformity in classification, curriculum, methods, and results. After we have avoided the great hazards of deprivation and damage, we may be able to move ahead farther faster by cultivating differences as a precious asset. In providing for individual differences in children in schools we need to take into account the facts, the attitudes toward these facts, and the implications and practices which follow from points of view about them. First, a quick look at some of the facts which are elaborated in articles in this issue.

A century of research has provided ample documentation of individual differences in every dimension—physical, social, emotional, and intellectual. Many of these are observable and measurable at birth and before. At each age they represent an end product in development of the numerous permutations and combinations of genetic and nurtural factors. Development must be nurtured but individual differences persist under all conditions that man is able to provide. Most widely studied have been the differences between individuals where all have had the benefit of common experiences or materials for growth. Qualitative differences between individuals may regularly be found in areas of presence and absence of experience, e. g., literate and illiterate. Well established also are intra-individual differences in the amount of various achievements present. Change with time at different rates and with unique designs is adequately documented. Continuity over the years is the rule with systematic changes in individuals. The longer children attend school the more unlike they become in achievement in areas of common experience. If adjustments are made for the increasing averages the relative variability shows more constancy.

Consistent differences between the sexes are regularly found in many school achievements. The difference in reading age, for example, is about six months or one-half grade in favor of the girls at each age in the growing period. This makes a sufficient difference at the lower end of the distribution to load clinics and remedial classes with four or five times as many boys as girls. The difference of six months at the average is overshadowed by a standard deviation of two years and a range of ten years for each sex by the sixth grade.

It remains true, whether for biological, cultural or statistical reasons, that children viewed as wholes are more alike than when a single attribute is considered. Education should provide for the core of relative similarity as well as for the enormous variability in specific aspects.

We should not be misled into believing that we have created homogeneous categories by identifying groups of gifted and mentally retarded children. While average effects are present, the differences in children within each group remain striking. Each person still has unique qualities and patterns.

There are large differences among communities in health, economic, and social indices and these have been found to coexist with measured intellectual, behavioral, and educational characteristics

of the children. Within each city with neighborhood schools persistent systematic differences are found among them. Differences among communities are revealed in the values placed upon education, what they seek for their children, in willingness to support, and in the acceptance of changes. Schools at the best are sensitive to and build upon the varying needs presented as well as on the common requirements for a citizen.

What are some of the attitudes toward the foregoing facts? Facts are not translatable automatically into implications and practices. This is because there are also differences in attitudes toward them among responsible people. Values intrude to determine the course of action. Persons hold different hypotheses about the origin of individual differences. The bare facts of variability do not describe the process by which they came about. Extreme views may be held, for example, that all the variation among children is attributable to the environment, on the one hand, or is all attributable to heredity, on the other. The truth probably lies between. Science does not have a perfect answer to this problem in multiple causation. Social stratification and political ideologies produce emotionally colored points of view which make for programs which are different in operation. The democratic ideal of providing opportunity for maximizing the growth potential of all produces a different program than the exclusive ideal of the education of a select few.

At times the evidence on one course of action or another is unclear. The evidence may be balanced at the level of "coin tossing" or chance. The prevailing climate of opinion may precipitate a decision without valid support, and the attitudes of individuals reflect uninformed disagreement. To say that, where we do not know the answer, we should be flexible and experimental reflects a bias in favor of the scientific method.

The democratization of educational opportunities has caused a gradual shift in attitudes toward individual differences in large numbers of people from suppression, to toleration, to cultivation. If one accepts capitalization on differences *between* individuals and building on strength *within* an individual as a desirable practice for schools, certain consequences follow. The curriculum becomes broad rather than narrow. The expected achievement is at the level of the child's ability rather than at the average, norm, or standard for a group. Instructional materials with a range in difficulty are available for each class group. The marking or description of individual differences in achievement takes on more the character of a nurturing than a punishing process. Reports to parents reflect the same characteristic. With a healthy respect for individual differences, child participation in planning becomes more acceptable and needful. Mechanical common assignments give way to more dynamic practices which permit seeking, self-selection, and creative solutions. Children may properly then occupy various roles in a group, have interests which differ, and be in the process of finding a place in a society which survives and prospers because individuals fit into its varied needs.

The time has come to accept individual differences in children as a reality and to work with them without trying to blame them on anyone or to feel guilty that they exist. Resistance to easy modifiability is man's insurance of stability, and the possibility of change his hope for the future. Individual differences among people are a precious asset. A constructive program to meet them promises large returns.

—Willard C. Olson, *dean, School of Education, Univ. of Michigan, Ann Arbor.*

ROGER J. WILLIAMS

Individuality and Education

A prominent scientist, educator and author points to the cumulative evidence as to the wide range of human variability. He suggests some of the tremendous implications of this evidence for the organization and conduct of the schools.

THAT DIFFERENCES between individuals exist has been recognized about as long as men have reflected about themselves. Adequate detailed knowledge about these differences is, however, lacking in this modern day when we have detailed knowledge about so many other things. We lack definitive knowledge regarding what the distinctive factors are, how they arise, their magnitude and their distribution in the population.

As a consequence we are ignorant regarding the implications of the facts we do not have. Any intelligent decision as to how important individual differences are, and any discussion of what should be done by way of adjustment, must rest upon knowledge rather than surmise and inference.

Up to the present time scant attention has been paid to studying these differences, partly because these exceptions stand in the way of generalization and we want to "go scientific" and generalize, and partly because studying differences seems to be flying in the face of the idea of the brotherhood of man, and the concept that all men are created equal. Any idea which seems to meet head on both the scientific urge to generalize and the religious and political ideas of brotherhood and equality, might be expected to meet resistance.

To disarm my critics I will say immediately that I believe in science and generalizations, also in the brotherhood of man and the principle that all men should be equal before the law. It is only aberrations of these ideas that I call in question. Generalizations are the life blood of science but spurious generalizations can only poison it. Men are not and never have been identical, and any conclusions that rest upon the premise that they are, must be false. Harmonious relations among human beings will be enhanced—not decreased—by knowledge about existing differences. Knowledge is power in this realm as well as any other, and ignorance has but one color—black.

It is surprising from one point of view that we have so little satisfactory knowledge about these differences, especially when we consider that they are in essence the foundation of our desire for liberty and the freedom to make our own decisions. If it were not for differences there would be no reason for religious liberty, for example; a religion that would satisfy one, would satisfy all and there would only be happy conformists. If human differences are of a trivial nature, then we have been guilty of making a great hubbub over trivialities and the idea of anyone preferring liberty to death seems absurd in the extreme.

There is no doubt, however, that many people regard the liberty which allows them to make their own decisions—based upon their own differences—as crucially

important. This is reason enough to enquire into the subject of differences, and to become thoroughly acquainted with them.

A recent revision of an older book on human differences (1) reflects a widespread attitude—that of trying to make human differences look as small as possible in the hope, I presume, that this would bolster up the idea of human brotherhood and equality. Wechsler actually states, ". . . it will be possible, I believe, to show that human variability . . . is extremely limited. . . ." History demonstrates that when anyone sets out deliberately to show or prove something, he is usually able to come out with a conclusion that is satisfactory to himself and in line with his original purpose. Wechsler's book constitutes no exception.

What Is the Evidence?

There is now, however, a vast amount of cumulative evidence, much of which has only recently been assembled (2) which clearly justifies the view that human variability in anatomy, physiology, biochemistry and psychology is extremely pronounced. With respect to some of the items that can be measured with definiteness and precision, ranges of variation are, or appear to be, 5-fold, 10-fold or even more.

Some of the items for which ranges of 5-fold, 10-fold or more appear to apply, on the basis of the best available evidence are: sizes of stomachs, livers, kidneys, spleens, testicles, ovaries, thyroids, parathyroids, pituitaries, adrenal cortices, the numbers of islets of Langerhans in the pancreas, numbers of each of four specific types of leucocytes in the blood, of eleven specific types of cells in bone marrow, the histamine content of the blood, the protein bound iodine content of the blood, the content of several lipid fractions of blood, at least five enzymes in blood plasma, at least three enzymes in erythrocytes, calcium phosphate in bone, magnesium in saliva, urinary excretion of estrogens, urinary excretion of androgens, urinary excretion of the lactogenic hormone, urinary excretion of several amino acids, nutritional needs for calcium, nutritional needs for certain amino acids, nutritional needs for five or more vitamins, level of alcohol in the blood required to produce intoxication, concentration of mercuric chloride required to produce skin irritation, Schneider indices (neurocirculatory efficiencies), results of "cold pressor" tests, ability to detect weak electric currents, taste thresholds for most common substances.

Because of lack of direct study, much of the evidence for these wide variations has been recorded inadvertently by investigators who had interest in matters quite aside from human variation. Direct interest is necessary in order that the items listed above and many others be checked and rechecked and the dependability of the information increased.

Three additional points with respect to the differences themselves need to be made. First, the list of items above is not a comprehensive one; it is only representative. Second, differences need not be large to be significant; hence the items we have listed in which variations are large are representative of only a fraction of those that are significant. Third, there are many important differences which cannot be stated in mathematical terms, for example, the very large differences in shape and structure of human hearts and brains, and multitude of nerve patterns, muscle patterns and tendon patterns which are distinctive for each individual.

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One area that should be of special interest to educators is that of the structure of human hands. Eleven diagrams are necessary to depict the variations of the attachments of one muscle alone—the extensor muscle of the index finger. Eight distinct patterns of tendons on the back of the hand have been recognized. Human hands are by no means assembly line products and this accounts for the well known fact that handwriting is distinctive for each individual. It also accounts for the fact that some otherwise normal individuals are wholly unable to write presentably.

Lashley (3) states with respect to our brains, "The brain is extremely variable in every character that has been subject to measurement. Its diversities of structure are of the same general character as are the differences between related species or even between orders of animals. . . . Individuals start life with brains differing enormously in structure, unlike in number, size and arrangement of neurons as well as in grosser features." It is worthy of note that, according to neuroanatomists, nerve cells do not multiply during growth and development, so that the fundamental cellular structure of the brain is determined at birth.

It will be interesting to those who have dabbled with the problem of individual differences to know that the items listed above are different from those more often considered. Wechsler in his book cites over one hundred items but does not include a single one which we have cited.

If one is seeking to minimize the variation that exists, he will do well to concentrate attention on composite items, those made up of many parts, such as basal metabolic rate (the summation of the oxygen consumption of every organ, tissue and cell in the body) or intelligence quotients (the summation of various types of mental abilities). If one looks at specific organs, tissues and cells, then the differences may be large indeed. If we test individuals for specific types of mental abilities, we may find enormous differences with respect to each type; yet their summed up abilities (IQ's) may appear about the same.

A most important fact which has too often been overlooked, relates to the distribution of extreme values (with respect to any measurement) in the general population (4). If a certain few individuals, who could be regarded as freaks possessed the extreme characteristics for the whole population, then they could be set aside for special treatment. Such is not the case; the extreme values (within the normal range, if you will) are distributed throughout the whole population.

The concept of an average person or student is that of one who is about average in almost every way. If we divide the whole range of values for any measurement into (a) a lower quartile, (b) a median 50 percent, and (c) an upper quartile, the chance is one out of two that any randomly selected individual will be about average (fall in the median 50 percent) with respect to this measurement. But if we have sixty independent measurements, the chance that any individual will be in the median 50 percent in all, is about one in one quintillion. The person or student who is about average in every way had better be disregarded, because there is no evidence that he or she exists.

There is no doubt that the observed differences in people are to a large degree genetically determined. Each one, however, has so many diverse capabilities, that the sum total of his or her life may be outstanding. Few if any of us live even approximately up to his or her potentialities.

In the field of mentality, for example, there are a large number of facets. Not

only are there "primary mental abilities" such as arithmetical facility, word familiarity, spatial imagery, etc., which are involved in the performance of traditional schoolwork but in addition there are musical, poetic, artistic, inventive, creative and social gifts which are also surely related to intelligence. Each individual possesses a highly distinctive pattern of mind which makes it possible for him or her to be adept in certain ways and at the same time probably conspicuously inept in others. The simple classification of minds as "good" and "poor" is puerile and quite misleading.

One of the difficulties involved in learning more about the differences that exist between people, is that individuals are not static but are subject to stresses and capable of adaptation and education to such an extent that intra-individual differences can complicate the study. Nonetheless the inter-individual differences which have anatomical, physiological and biochemical bases, are fundamental and can be fully investigated if we will.

Implications

The implications of what we have been saying are so far-reaching as to be overwhelming. I doubt whether the facts that we have considered could be the basis for any immediate revolution in the organization or fundamental conduct of our schools. Should we have special classes for "exceptional children"? Perhaps so, but we will have difficulty in drawing the line of demarcation. Children are characteristically exceptional, each in his or her own way. Also we must not forget that human beings have to live together, students need to be together, they need to learn self-discipline and to accept their social responsibilities and play their own roles as members of the human family. I suspect, however, that if we had a full appreciation of the degree of individuality which exists the content of our schoolwork would be changed materially. To load up the mind with more and more information may be "just the thing" for some individuals; for others, this approach may be worse than useless. And as Thirring (5) has pointed out there is a general need in education for inculcating practical "wisdom," regarding human potentialities, human responsibilities and human relations.

It seems to me that the immediate educational implications of the high degree of individuality which exists (whether we recognize it or not) include the importance of teachers' learning more and more about this individuality so that the concrete evidences of it which they encounter every day can be tolerated and dealt with, and to a degree understood. Research designed to find out more facts about individuality is desperately needed and there is no reason why educators throughout the country should not become research minded with respect to this highly pertinent area.

Another highly important implication for education is the desirability of children in nursery school and at every level becoming acquainted with their own and their schoolmates' differences. Small children have very substantial differences with respect to their senses of sight, hearing, smelling, tasting, and the touch senses, as well as in motor skills, reactions to music, etc. Why not help them gain insight into themselves and their mates, which will make it easier for them to live continuously with themselves and with their fellows? We have been guilty of developing in children a bad psychology which is carried over into adulthood —namely that of dislike for anyone who is different. When the facts of individuality are known, this attitude becomes absurd.

One of the important functions of public education is to get each student acquainted with himself to the end that he can make the most of his life and thus contribute to the public weal. To get acquainted with his own being is highly important. This cannot be accomplished without also gaining knowledge of the individuality of others; this knowledge figures intimately in every facet of his life, because he is a social creature.

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FLORENCE E. BEARDSLEY

Educational Dilemmas

Though facing today's unusual pressures, the school still must attempt to provide its burgeoning population with a program that exemplifies the best that is now known about how children and young people grow and learn.

Higgledy, piggledy[1]
My black hen
Are we to build schools
For gentlemen?

RECENT articles and proposals would make us think so. Are the schools to adopt the European system? Why this mounting pressure? Schools are always under pressure to change or not to change. Unusual uneasiness existing everywhere, however, tends to produce greater sensitiveness to pressure groups. Schools responding, sometimes enthusiastically embrace procedures that should be examined more critically. The educational dilemma at present is that the schools are short, yes, very short—short of money, short of teachers, short of buildings, but long on children!

Higgledy, piggledy
My black hen
They come in groups
Sometimes nine, sometimes ten.

The hordes of children for which America is grateful and proud create a severe problem and a challenge. Is it possible for our land to offer to all, free educational choice? Of what shall that choice consist? Are most children early to be channeled into groups according to some artificial screening? These questions deserve most serious consideration.

The American dream would provide all children opportunity to complete a high school education. This, however, is becoming increasingly difficult. Along with the burgeoning hordes has come a

[1] This nursery rhyme sometimes uses the phrase, "hickety-pickety." The author, here, however, wishes to convey the meaning, "in confusion or a jumble."

refinement in knowledge of how students learn and how the human organism grows. We are in a dilemma because we no longer can disregard the fact that each child is unique, each child has a number of different maturity rates, and each child has a different learning pattern. Consequently, each child develops a different background of meaning.

In the tradition of the American dream, if the factors in which we are short and what we know about learning are mixed together higgledy, piggledy, the schools find themselves inadequate, and a chain reaction of very strange phenomena begins. Any solution which presents a new angle is quickly embraced.

There is a law in physics stating that for every forward action there is a backward thrust of equal intensity. Perhaps it should not surprise us then, when many feel that instead of going forward to meet the challenge the time has come to revert to the practices of other times. In those days we were more certain of the answer. Those were easy days, when education for *all* was only a dream, not a reality.

One of the areas in which a dilemma is encountered is the matter of school organization. Pressure to change organization extends into the classrooms as well as throughout the school. Once again there is serious debate concerning the merits of heterogeneous or homogeneous grouping.

Agreement among those who follow the implications of research affirms that learning a skill is largely an individual matter. It then follows that enough instructional help must be available to give the child necessary instruction at the time he needs it. To some, the solution of the problem is flexible grouping—the forming and reforming of groups in the skill areas in order that a child may always be with a group which is stimulating to him and in which he stimulates others, but never remaining in the same group throughout the day or day after day for long periods of time.

Others, starting from the same premise, indicate that the simplest way to care for children's needs is to get all the children together who need a particular skill. This will make it easier for a teacher to instruct, and, because the preparation is all the same, the teacher can handle many more children.

There are various ways of accomplishing this end. Some schools would teach the same subjects in all the grades at the same time, reassigning the children during that time according to the place where they fit best. Others would have three levels of ability within a room. Objections are aroused by any one of these methods. What shall be used as a criterion for forming groups? Many schools use reading ability; others, intelligence quotient; still others, convenience, because some children take music or play on the football team. Does a skill taught in isolation become functional? What happens during the rest of the day to each of these children?

There are still others who have looked seriously at the fact that every child has a rhythm of development according to his own pattern. Basing their action on these facts, they have said that it is necessary that a child not be placed in a group but progress at his own individual rate, especially when a skill is being acquired. In these instances no grouping occurs, at least for the major part of the day. This is a very limiting kind of situation requiring a master teacher who can work with many children individually *at the same time*.

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Much of the reduction in class load throughout the country has been partially based on the fact that parents have wished and administrators have felt it necessary to give the individual child more time with the teacher. This relationship was the key to adequate opportunity for educational development.

It is not only the well-to-do community that wishes to restrict its class load to a reasonable number. Cricketville was a boom town—one of those towns that spring up around a government project. The scene was dotted by the coral, blue, and silver of trailer homes. The children were many and the original three-room school now had 22 rooms. Still it could not be designated as a school because children were to be found in the city hall, in the town library, in the Quonset huts, and in the new building that had required every cent of bonding capacity that Cricketville could muster.

The town was under pressure to supply school buildings, water, lights, sewer facilities, and other necessary utilities. Towns in such situations are apt to slight the schools, but not so the people of Cricketville. They cherished good educational opportunities for the children. When it was rumored that, starting with the fall, the teachers of Cricketville would have 30 children in their classes, the commercial club and the service club requested the district board to keep the class load to 25. "We may have to take up private subscriptions. We haven't much else to give our children in this town, but we do want them to have the opportunity to learn," they said.

This illustration gives evidence of the thrust that is occurring to reduce class load and to make instruction an individual matter.

Everywhere the problem is the same—too many children enrolled for the teaching staff—but not all communities arrived at the same solution. Mariontown boasted that its teachers were on the highest salary scale in the state. Classrooms were filled and about to overflow. The superintendent, pressed by financial limitations, received well-illustrated literature indicating that employment of teacher aides was a new way to care for heavy class loads. This, he felt, gave promise of a solution. Teachers' salaries were raised and class loads were artificially increased from 32 to 42. A high school girl was employed to help each teacher.

It is not known whether the teachers of these experimental classrooms had always used very formal procedures, but it was interesting to those who visited the rooms to watch the experiment. The instructional procedure was largely "study and recite," and was unusually formal for this system. It was apparent, however, that the children were under unusual tension. Much more homework than could possibly be desirable was given the children. The parents complained. Much attention was being given to straight drill, and little effort was being directed to caring for individual instructional differences except for those children who were falling markedly behind the large majority of the class. The teachers felt under compulsion to have *all* children reach a certain standard by the end of the year; yet this pressure was not apparent in those teachers of the system not having teacher aides.

The second year the project was in process, the plan was changed to furnish a secretary for each teacher for half a day. These secretaries were to go through all the papers, do all the correcting, and all the recording. When interviewed concerning their reactions, the teachers felt that they did not know the individual children as well as formerly and that it took much of the teachers' time to direct

the secretaries. Instead of lightening the teaching load, it had been increased. The teachers expressed a desire to have less salary, lighter class loads, and no teacher aides.

Higgledy, piggledy
My black hen
We're pushed and pulled
Beyond our ken.

If the pressures to take care of all the children of all the people cannot be met, perhaps we should see to it that the gifted, of whom we have spoken so often and for whom we have done so little, receive attention. The need of the nation for scientists, for intellectuals who will do pure research, for men who will be creative, and yet have all the components of mental alertness in a world the aspects of which are just now dimly seen on the horizon, is pushing many of us to look to the gifted to make sure that they have a scholarly education.

But alas and alack, who are the gifted? Once you seek a description, it is hard to define. Even those who are gifted show an uneven development and there are many more of them than we had thought. How shall we give special help to each of them? Here, again, when the idea is pushed too far, we may develop a class education for certain types of people—an education for the elite and an education for all others who fall into a lower class. This we may face if we cannot support the full financial burden of public education—truly an educational dilemma of great magnitude.

The appearance of a new medium such as television or radio always creates new problems. In attempting to make effective use of the element we often find ourselves overenthusiastic. The estimates of achievement tend to be enlarged as compared with the evidence.

Instructional television is in that phase of development at the present time. Its foremost promoters believe that its use might permit a reorganization of the whole school system. They envision its use with extremely large classes to help overcome the teacher shortage. It is believed by some that better instruction would be brought to the classroom through the use of master teachers in the telecasts. All of these statements are true to a degree, but how shall these truths be integrated with other facts? Surely we cannot utterly disregard the different learning rates of children or that they bring different backgrounds and varying needs to the learning situation. Only the classroom teacher could resolve these differences and he must have time for individual instruction.

Television is little different from motion pictures, which have been available to the schools for several decades. Experience with motion pictures has shown that they are best used in presenting a growth process which takes a long period of time to accomplish and which, in the motion pictures, can be encompassed in a short period of time. When a developmental process is too large for the classroom, or children cannot have access to the real situation, then television or motion pictures as media are good and serve better than any other media might serve. If it is desired to show action as it occurs in life or as it occurs in narration, television or motion pictures can greatly benefit and richly supplement classroom instruction. Television is vivid and full of action when used to bring current happenings into the classroom. It is not likely that television is the present cure-all for our problems, but if wisely employed it surely will augment our instructional processes and learning will be much richer for its use.

Higgledy, piggledy
My black hen
The college refuses
To let us in.

The bulge in secondary schools will soon reach college doors. The colleges surveying the oncoming hordes reach for new methods of screening. What shall they use? Grades and objective tests? This threat has already affected the secondary school. There is a renewed emphasis upon grades and grading—just when there was some hope that schools might shake themselves free from the bounds of the Carnegie unit—just when there was an exhilarating push to learn more because there is so much to know and because the opportunities of making use of knowledge are legion.

Are teachers to think more about the smaller segment of students who are now to go on to college and less about preparing the larger majority who may be having their last chance at formal education? There is a push in this direction.

There are others, however, who have taken a different turn in the road. Knowing that most children in elementary and secondary schools cannot and will not go to college, the curricular offerings have been broadened to include almost everything that a community has indicated as examples.

Spreading offerings so thin has also produced a trend in the opposite direction. There are those who believe that the school can only accomplish so much and no more. That being the case, our job as educators is to return to the "good old" fundamentals.

One such district on the east coast offers as an elementary program reading, arithmetic, writing, spelling, history, and geography. No science is taught because that is the task of the high school; no health because that is the task of the home. No library books may be brought in from outside libraries unless first approved by the board. All extraneous material used by the teacher must be approved by the board. School is to be simplified and directed to the rigorous "essentials." Children pass or fail as they meet their tests. Teachers in the school like it. They are not bothered by anything except the few facts they teach. This makes teaching so easy. Teachers really have few choices to make, no judgments to pronounce, no individual differences to consider. "Theirs not to wonder why—theirs but to do or die." Higgledy, piggledy, you wonder why, why, why in the light of all the present research there should be such a throwback to the times of yesteryears.

Still another solution to care for the great numbers of children has been proposed. Why not lessen the expense, push the children through school, and hustle them into the labor market? There are certain children who seem to be very apt in their abilities to absorb the intellectual offerings of the schools. By arranging a shortened curricular offering, it is possible for some youngsters to move into college at 14 or 15 years of age, thus reducing the cost to the school systems and adding to the productive force of the labor market. Other places have shortened the number of years to be spent in elementary school, either by condensing the program or by starting the children at age five. All these methods bear careful inspection.

More research of a valid nature is needed to uncover the real facts. Just what has happened to the individuals who have participated in this type of school experience? What will this do to the labor market? To how much play life is an American child entitled? Should we take away two of these years? Questions and pressures make educators uncertain

and have caused schools to react in many different ways.

The tempo of change has been rapid. The schools, always slow to react, have been caught by a surge of demand—demand for people trained and prepared for the world of electronics and automation; men to man the machines that outcompute man; men to man machines that can remember and correct their own mistakes.

Man is being freed to be creative, to be inventive. An equal number of people will be needed to service machines and keep them in working condition, but by far the greatest challenge that comes to us in this new age is a need for people to be trained to render personal service to mankind, service in social welfare, in the aesthetic world, in cultural fields, and in the field of human relations. The move is rapid. All of us have not yet sensed the immensity of it, but little portions of the change have already disrupted the serenity of old patterns enough to make us feel that demands are urgent.

Knowing that change is rapid and the need is imminent, we are tempted to try anything that brings solution to the growing pains we are experiencing. All growth is apt to cause irritation. The pressures that are evident in the world are evident in the schools. They are causing changes in instructional techniques, in curricular offerings, in financing, in organization, in programming, and in screening.

We need the long-time view. We need also not to be afraid of change, but to seek for valid evidence that the change we accept will square with what is known about human beings and their learning processes. If we do not have the needed research, we must ask for it or set about to find the answers ourselves.

Yes, there are educational dilemmas. Let us not be stampeded nor yet forget to move with the times.

Higgledy, piggledy
My black hen
Let's be calm
And check again.

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LUCILE ALLARD

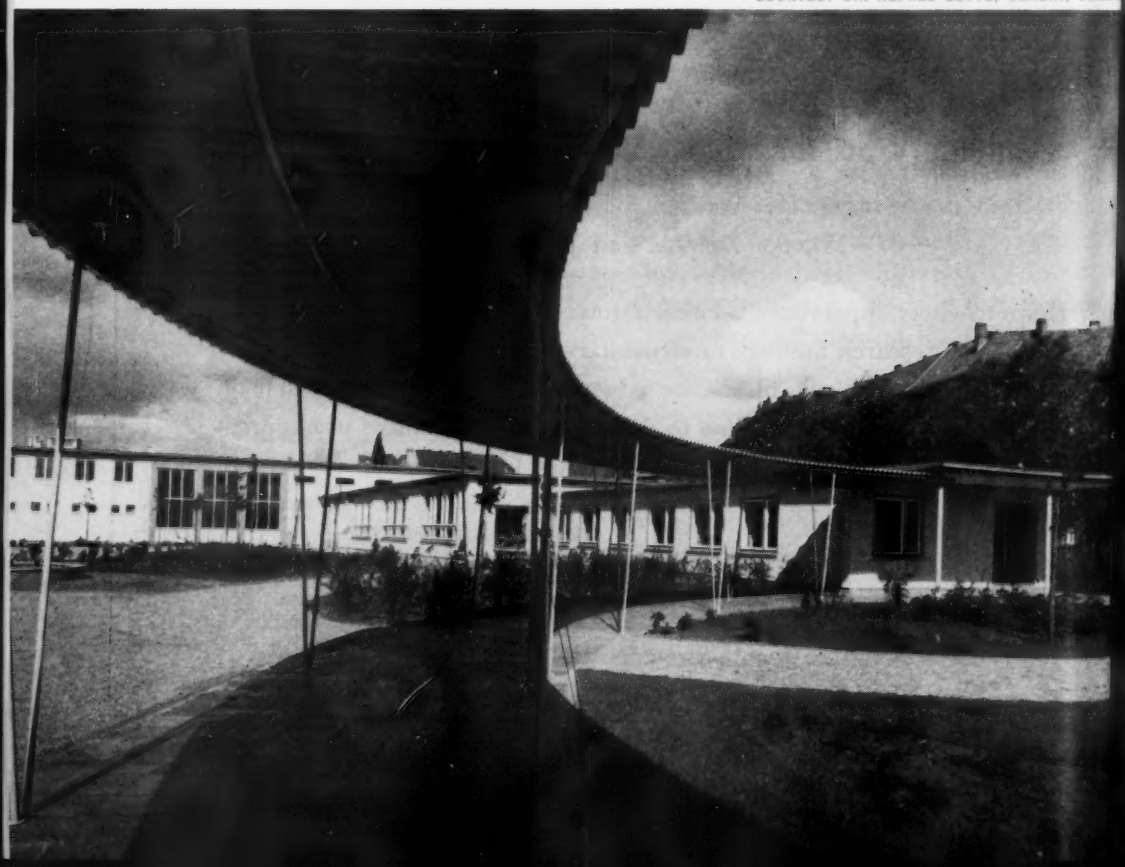
A New School in West Berlin

This brief description of a new elementary school building in West Berlin will be of interest to many persons who are concerned with the physical setting for learning.

THE NEW elementary school in Wilmersdorf, West Berlin, Germany, is not at all like the old bombed-out, cold and inadequate buildings of the 1948-1949 days of the Russian Blockade when little could be done to build new schools or even to recondition the old windowless ones. But now, West Berlin has come to life, and the city is glowing with new buildings of all sorts. The beautiful and unusual Wilmersdorf school was constructed under the leadership of Dr. Alfred Zettl, superintendent of schools in that district.

Dr. Zettl has been for many years, before and since the war, a teacher and leader in the development of more democracy in German public schools. In 1952-1953, he spent several months in the United States under sponsorship of the U. S. international program of exchange of persons, and his daughter spent her senior year in a Michigan high school, while living with an American family.

COURTESY DR. ALFRED ZETTL, BERLIN, GERMANY



COURTESY DR. ALFRED ZETTL, BERLIN, GERMA

Dr. Zettl writes enthusiastically of his new school:

"In each pavilion there are three classrooms connected with each other like a triplet; a fourth part for toilets, a teachers' room, and a room for instructional materials and equipment. All of the classrooms have extensive window space on two opposite walls, which makes for excellent ventilation. In addition, each classroom ceiling is acoustically treated, and a lawn in front of the windows provides space for classes to be held out of doors in good weather.

"The furniture selected has runners, preventing injuries to students when it is moved in the room or outside. The tops of the two-place tables are made of an especially prepared wood that is ink-resistant and so can always be kept clean and bright.

"The court around which the school is built is quite like a garden, with a fountain surrounding the statue representing an old fairy tale. This emphasizes the garden style. Walks connect all the buildings and are covered with 'Eternit' tiles protecting students and teachers from rain or snow.

"Some of the apparatus in the gym can be let down or put up and thus made

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***LUCILE ALLARD** is coordinator of pupil personnel services, Public Schools, Garden City, New York. The author worked with Dr. Zettl and other superintendents when she was in Berlin during the blockade of Berlin by the Russians. She states, "Dr. Zettl had been a teacher in one of the 'progressive' schools in Germany before the Hitler time, and was trying to do a good educational job in 1949 in spite of all the shortages and handicaps of those days."*

COURTESY DR. ALFRED ZETTL, BERLIN, GERMANY

invisible by a kind of trap-door system. This is an all-purpose room and used for an auditorium as well as for social affairs. All of the movable apparatus can be hidden behind a curtain. When the gym is needed for sports, the 400 chairs can be put away under the stage. There are showers and dressing rooms for girls and boys, and nylon curtains of net to protect the windows.

"As separate units, but connected by covered walks, are the kindergarten and a library with attractive modern reading rooms. In front of these buildings there is a 270 by 180 foot field for all sorts of sports; total area of buildings and grounds is seven acres. Altogether the school has 18 classrooms and a kindergarten. Total cost of the buildings (lot not included) was $420,000, or $21,400 per classroom, which is exactly the same amount that is needed for schools with several stories. Therefore this school is not any more expensive than one with a number of stories, but has the great advantage of being all on one floor and being quieter. The people in the school district are unanimously in favor of this type of building, and many visitors come to see and admire it daily."

German elementary schools of the past had neither libraries nor kindergartens as a part of public school units. Also a teachers' room seems to be a desirable modern addition to school building plans. Neighborhood and one-story school buildings are increasing throughout the United States; we seem almost to be taking these for granted. But this Wilmersdorf school building, 110 miles behind the Russian curtain in West Berlin, is an exciting and extraordinary achievement.

RICHARD N. PERCY

Individualizing Instruction in the Secondary School

A beckoning frontier of our time is that of how to individualize instruction at the secondary school level so wisely that the educational needs of all pupils will be met.

THERE IS no area of concern which might more aptly be termed an educational frontier at the secondary level than that of effectively dealing with individual differences. This problem area remains an educational frontier not because of a lack of attempts to solve it but rather because of an inherent stubbornness which resists half-hearted efforts at exploration. Many an exploratory foray has been charted; many an over-arching theory has been built. But the actual expeditions have been relatively few; the substantiated statistical data, negligible. Not since Detroit, Michigan, introduced ability grouping (X, Y, Z plan) in the early twenties has there been a widespread and consistent attempt to explore this frontier.

Yet the very fact that vocal segments of the society are demanding that more educational attention be devoted to the gifted, the talented, and the exceptional student; that the student be given added orientation to science for the purpose of recruitment; and that either homogeneous or heterogeneous grouping be given precedent gives evidence that the frontier does exist. Were there not these demands for attention to the needs of special individuals, it might be assumed that instruction is being so wisely individualized that the needs of all students are being met completely.

What then are the practices that attempt to push back this frontier?

These practices fall conveniently into two major groupings. The first group contains those that may be integrated into any existing program; the second, those whose implementation requires some unique facility either in terms of a building or of a time structure.

The Individual in a Regular Program

From the many efforts to individualize instruction that could belong within the first grouping, nine will be discussed here.

1. Individualized instruction is fostered by the concept of a classroom teacher who functions both in the area of instruction and of guidance.[1] This concept is predicated on the philosophy that a need of each individual is to preserve the self not only as it exists at any given instant in its life span but also as it projects itself into the future. The preservation of the anticipated self requires the strengthening of those qualities and attributes which are essential to the maintenance of the potential self within its area of operation. It has been stated that the basic human need is "the preservation and enhancement of the phenomenal

[1] Florence D. Cleary, Alice M. Davis and Arnold R. Meier. *Individual and Group Guidance*. Detroit: Wayne University Press, 1953, p. 3.

***RICHARD N. PERCY** is coordinator of secondary education and guidance, Public Schools, Kalamazoo, Michigan.*

self."[2] As alert administrators, recognizing this basic need, become aware of the fact that guidance is not a function of the school which is to be provided only at widely dispersed intervals when there are special problems to be solved, they place the guidance function with the classroom teacher. Once the classroom teacher begins to assume the guidance responsibility, he develops a new awareness of the needs of the individual student and in turn provides an educational program better fitted to these needs.

2. Individualized instruction is improved through the use of teacher-pupil planning. Here the teacher and the pupils work together to determine the goals and objectives not only for the whole class but also for each individual in the class. This planning together to determine content, method and evaluation directs all attention to the needs of the individual. The teacher who carefully abides by the plans thus made must of necessity make the instruction appropriate to goals of each student.

3. Individualized instruction is secured by having homogeneity within heterogeneity. It is not the province of this discussion to take issue or give support to the cause of those who advocate either homogeneous or heterogeneous grouping. It is apparent that both factions find some supportable evidence to make their claim for preeminence justifiable. Because of this it seems logical to assume that both patterns of grouping have contributions to make to the individual student. To guarantee the benefits to be secured from each of these there is a growing practice to have ever changing homogeneous work and study groups formed within a heterogeneously grouped class. Thus it is possible to have mind against challenging mind and at the same time have complete catholicity of peer relationships. Within a single classroom and class period, it is further possible that homogeneity can be obtained for one undertaking by intellectual ability; for another, by interest; and for a third, by social purpose.

As students become members of one group for a specific purpose and join a new group once the purpose is obtained, and as they serve as members of the total group, both homogeneity and heterogeneity are secured. Once this result is secured the total needs of the individual student are more nearly met.

4. Individualized instruction may result from some form of school wide system of grouping. There still appears to be an effort to develop some magical means for grouping so that like minds and abilities can race forward without the drag of the less able. These schemes for grouping range from such simple techniques as placing the student into a group as a result of his score on a so called intelligence test to an infinitely more complex group-factor technique such as the one developed by David Stewart,[3] who determines a grouping quotient by equating several growth patterns. Each of these schemes has as its basic assumption the belief that better individual instruction results from some type of homogeneity.

5. Individualized instruction can be gained through the offering of a wide variety of electives or of different curricula. This device for meeting the needs and abilities of the student provides a grouping which results from the student's making appropriate selections from with-

[2] Donald Snygg and Arthur W. Combs. *Individual Behavior.* New York: Harper and Brothers, 1949, p. 58.

[3] Reported at the 1957 ASCD Convention in St. Louis by David K. Stewart, director of curriculum, Iowa City, Iowa.

in a multiplicity of elective subjects or series of subject areas. The true value of such an effort to gain individualization depends upon the student's ability to analyze his own needs, skills and aptitudes and his willingness to choose wisely.

The electives may range from foreign languages to industrial arts, from home and family living to creative writing, and from typing to sculpturing. However, there may be a parallel pattern of curricula such as business education, college preparatory, industrial arts and so on from which students may make selections.

This approach is used more at the senior high school than at junior high school level and has its greatest success where it is coupled with a highly trained counseling corps. Basic also is the necessity for a persistent follow through with each student so that changes can be made when they are essential to better serve the individual student.

6. Individualization of instruction may be obtained through clubs and cocurricular activities. While this method does not answer the need within the individual classrooms, it does offer the student a chance to satisfy recognized differences by means of participation in such activities as clubs, service groups and recreational programs.

7. Individualized instruction may be improved by offering a variety of units within a subject matter area rather than by creating new course offerings. The inclusion of many units within a subject matter area is a very real effort to analyze the social scene to determine those experiences which every student should have and to distribute these experiences throughout the curriculum. This then assures each student the opportunity of having these essential experiences at a level which is appropriate to his degree of maturity and his ability to comprehend. In addition to this it provides for a wider range of opportunities for experience within the relatively confined limits of normal course offerings.

8. Individualized instruction is improved through school-work programs. The cooperative work program, as it is often called, provides an opportunity for the student to get a controlled work experience which is suited to his native endowments and his previous training. Students usually attend school half days and work half days. There are, however, many variations within the administration of such a program.

Here again the success of this program, in terms of the student, depends much upon the insights of the teachers and the wise use of the counseling services.

9. Individualized instruction may be obtained through a wide use of a variety of materials. At no prior time has there been such a diversity of materials nor has there been such an honest attempt to produce materials which fit the specific needs of all types of students. Texts are written for different levels of reading abilities. Textual materials are supplemented by films, filmstrips, records, and demonstration kits. Firms are devoting millions of dollars to the production of free and inexpensive materials to be used in the classrooms. Television, radio, the press, and film companies are offering their services and products to the schools for educational purposes.

Too, the community has become an educational laboratory where youth may learn at firsthand the inner workings of a society. The people of the community have become a great educational resource. The vigilant teacher utilizes all of these materials to more nearly meet the great spread of differences within the classroom.

Adjusting the Program to the Individual

These nine means of individualizing instruction can be used within any classroom or school system. There are, however, at least three efforts to further the individualization of instruction which function more effectively when either the building or the time schedule is adjusted to fit the program.

1. Individualized instruction results from the use of the core, unified, or fused program. Of the many virtues which have been credited to the "core program" probably none is more valid than the one which asserts that it provides an opportunity for small groups of students to live with one teacher a much longer period of time per day. This in turn provides time for the teacher to know better each student, to plan with the students appropriate activities, and to devote more time to each individual.

The planning committee composed of both school and lay people for junior high schools in Kalamazoo, Michigan,[4] accepting the philosophy that the junior high schools should be committed to general education, recommended among other things that a three hour block of time be allotted in a single unit. During this time thirty students would be with one teacher for their English, social studies, and guidance experiences. In addition to this, art and music consultant help would be provided for the teacher of this three hour block. While there are several other aspects of the program which are unique, the single part of the program of major importance here is the making of the junior high school program guidance oriented. With the allotting of a time equivalent to one class period a day to guidance, the teacher is free to do both group and individual guidance and instruction at the precise moment when it is needed. This use of school time, a use which has its counterpart in many cities in the nation, is an attempt to encourage the teacher to use better his skill to tailor a program to fit each student.

2. Individualized instruction is promoted by designing flexible buildings so that the house, family, or school-within-a-school plan can be instituted. Here the concept of providing individual status and security by making each student a member of a small, permanent educational house or family, tends to foster individual instruction. The team of teachers who work within the house become better informed about the students within the house and tend to provide not only a better program for the group but also for the individuals within the group.

This effort at improving instruction has become a reality in several places. Examples of the arrangement in varying forms can be found in the new high schools at Royal Oak, Michigan, and Fairfield, Connecticut, and in the remodeled high school at Evanston, Illinois.

3. Individualized instruction can be obtained through a lengthening of the class period and through increasing the number of courses taken. By lengthening the time allotted to each class period and eliminating the study hall now common to many high schools, it becomes possible to satisfy accrediting agencies with fewer meetings of a class per week. The student is thus free to carry more subjects during a year and enrich his educational program. When counselors and teacher conceive of the total scope of such a shift, every effort is made to insure maximum individual growth for each student. A notable example of this plan successfully

(Continued on page 175)

[4] "Report of the Educational Planning Committee for Junior High Schools." Revised June 21, 1956. Mimeographed. Kalamazoo Public Schools.

WILLIAM H. BROWN

Behind the Test Score

There is danger, this author states, in "sanctifying" the test score. Both teacher and specialist have a responsibility in coming to adequate understanding of a child's intellectual functioning and development.

INVITING a clinical psychologist to write for an educational journal is either a case of mistaken identity or it is a rare privilege and a great honor. I hope there has been no mistake and that my assumed cloak of privilege and honor is deservedly worn.

Clinical psychologists are great defenders of the individual psychological examination. They tend to condemn group tests chiefly because mass testing produces scores which actually reveal little or nothing about the individual obtaining the score. We complain that the score gives us none of the dynamics of the person tested. Only an individual evaluation will allow an understanding of the living person under consideration.

With some further reflection upon the matter, it occurred to me that this intense defense of individual evaluation might be a blind and grandiose struggle to maintain a professional bias. Suddenly I was shocked by the heretical thought that individual testing was simply group testing inefficiently administered to individuals, one at a time.

Such a thought, of course, had to be hurriedly dismissed. It was much safer to move to the premise that evaluators of people, whether their evaluations are accomplished individually or in groups, have knowledge to share. Since most of my training and experience has been in the area of individual testing, my inferences will be from unique to group applications.

Some portion of the training of a clinical psychologist is devoted to the developing of skills in "blind diagnosis." "Blind diagnosis" simply means this: with a bare minimum of historical data, describe a person you have never seen from the data of his test battery. Many become quite expert at making remarkably sound deductions from test responses, knowing only the age, sex and educational level of the person tested. It becomes apparent that this is really a process of drawing inferences from "group" or "standardized" testing procedures, albeit individually administered. If their success depends upon something more than artful intuition, then clinical psychologists should be almost as successful with "blind diagnosis" of group test data.

We would boast that a good clinical psychologist can write a valid personality description from the material obtained in group testing. We would hasten to add that he possesses no magic nor is he especially intuitive. Actually, and perhaps I should not divulge this secret, the clinical psychologist functions most soundly when he adheres to the Biblical wisdom contained in the proverb: "As a man thinketh in his heart, so is he." If we know thoroughly how a person thinks, the pattern of the development of his intellect and the manner in which it is

***WILLIAM H. BROWN** is chief clinical psychologist, Utah Child Guidance Center, and is associate research professor, Department of Psychiatry, College of Medicine, University of Utah, Salt Lake City.*

utilized, then we can describe his personality. It is not implied that personality and intelligence are one and the same thing but they are so inextricably intertwined that it is impossible to consider one without the other. There is no "pure" intellect nor is there any "pure" personality.

My rambling thus far has not been simply a defense of clinical psychology. It has been an effort to demonstrate that the clinical psychologist does nothing that a teacher cannot do as well, and perhaps even better. The teacher, through a wise use of the data from standardized tests and with the many opportunities for observation of thinking behavior in daily classroom situations, has an excellent basis for making very sound inferences about the personalities of each of his pupils. From his continuing contacts with each pupil, the teacher can achieve a knowledge and an understanding which will far surpass that obtainable from any test battery no matter how it is administered. With this understanding, the teacher is in the most effective position to bring to realization the intellectual potential of each child.

In spite of their vastly superior position for understanding their pupils, teachers often behave as if they have no such knowledge. They tend to accept the scores or the reports of the psychologist as absolute. The greatest danger in testing programs and procedures, whether group or individual, lies in this tendency of many persons to sanctify intelligence or personality measuring devices. There is nothing sacred or inviolate about any of the business of measuring the intellect of human beings. A score or a report upon a test is something sterile. Grave consequences can stem from accepting mental measurement as *the* last word.

Recently I tested an 18-year-old girl who obtained an I.Q. score of 115 on the Wechsler-Bellevue Intelligence Scale. Although it is probable that a subject will function beneath his maximum potential in a testing situation, it is almost impossible for him to perform above capacity on any of the good measuring devices. We must accept, then, that this girl was quite bright at the time of testing. Certainly, she could not be defective and obtain this high score. But she had spent the three prior years in the State Training School for mental defectives. During her stay at that institution, she had been surgically sterilized. On the basis of an I.Q. score under 70, she was admitted to the institution and sterilized because she was diagnosed by a test score as mentally deficient. You know the girl did not gain the intelligence represented by 45 points in an I.Q. scale either by her stay at the institution or by any operation. She was always a potentially bright girl. Whatever intruded upon efficient and effective use of her intellect at the time of first testing was buried beneath a sanctified score.

You may protest that this is a dramatic instance and not too pertinent to school testing situations. We agree that rarely will anyone be committed to an institution for mental defectives upon the basis of scores obtained in standardized school tests. We know this girl was hurt; it is difficult to determine whether she experienced more pain than the lady in the next illustration.

A 32-year-old mother of four children was being seen in a parent-child counseling situation. She was a college graduate; her excellent vocabulary, her good logic and easy insight were ample evidence of

a fine intellect. But repeatedly she protested that she was just too "dumb" to raise a family. At first, this was thought to be a cover-up for other felt inadequacies. When she persisted in lamenting her lack of intelligence, the source of her notions of inadequacy was investigated and elicited this explanation: "I know I'm not bright. When I was in the ninth grade, I saw my I.Q. in the teacher's grade book." She sobbed uncontrollably as she blurted out: "It's only 102." For almost twenty years this poor woman was haunted by a score which was proved wrong by her good academic record in high school and by her graduation from college. My efforts to reassure her were of little avail; she was sure the score in her teacher's roll book bound her to mediocrity.

So it was twenty years ago that this lady saw her score and got a fixed idea about it. Does this sort of thing happen today? I am certain the incident which I am about to report is not unique to our city. It probably would be duplicated in every school district in the country.

Just a few weeks ago, a local high school girl whose report cards always included a majority of A's was over-protesting her lack of intelligence, much in the same manner as the young mother. "I know I have an I.Q. of only 105." She told this story: "A few months ago, one of the kids in my algebra class received a fairly low grade on a test. When she asked the teacher about it, he said he would see if she could do any better. He looked at a score in his roll book and commented: 'No, you're doing about what you are able to.'" My friend, of course, took her first opportunity to sneak a glance at her own so-called I.Q. score with the discovery of the 105.

Each of these instances represents abuses attributable to the sanctifying of I.Q. scores. My emphasis throughout has been upon the term "score." An intelligence quotient is a score; a mental age is a score. Actually, a chronological age is really a form of score-keeping and it is susceptible to the same abuses as "mental" scores. We all know what certain age scores can do to us. A very depressed woman I know is that way chiefly because she suffers from a chronological age score of 42.

A Starting Point

Thus far it seems I have only said that testing procedures are not very reliable. Although I have stressed the dangers of absolute acceptance of test scores, measures of intelligence and of intellectual achievement do have great value. Even the scores of which I have been critical, have definite significance. We must recognize, however, that the single I.Q. score is simply an averaged computation of the several scores obtained in a limited sampling of intellectual performance. The score of one subject allows us to compare his performance with that of a general population which took the same test, supposedly under identical conditions. Test scores, then, provide a beginning basis for understanding the person who obtained the score. They tell us where he stands in relation to others of the same age.

It must be emphasized that the score is only a starting point. To stop here would be somewhat the same as a physician who begins and ends his diagnosis by simply confirming the patient's symptom: "Ah, yes, we have discovered your trouble—you have a pain which keeps you awake all night." Of course, the more important job, with scores anyway, is to discover *how* the score was obtained, *why* the subject performs in the manner he does and *what* his performance means in relation to his total functioning pattern. Still the most important of these

quintuplets is left out. When we know *who* took the tests and obtained the scores, then we are not losing sight of the person, the living human being.

Suppose you had a pupil in your class who scored high on a group test but was performing poorly in class. The only valid conclusion you may draw is that the student is not functioning in keeping with his ability. *Why* is he performing poorly in school? Don't ever jump to the conclusion that he is lazy, for this is simply a descriptive but unenlightening term which tells us nothing. The teacher, without excessive expenditure of time, is in an ideal position to explore the *why*. Does he already know what is being taught? Is he rebelling against a parent who puts an overly high premium upon intellectual achievement? Is he hypersensitive about demonstrating "brain," deciding in effect that it is dangerous to manifest too much intelligence? There can be a great variety of reasons *why* he is not achieving. An observant teacher will receive many cues in the daily classroom situation which will enable her to understand the source of a particular child's difficulty.

It is at the other end of the scale, perhaps, that the more grievous errors are made. A child's test score is low, he does poorly in class, he seems dull, so you conclude that he just doesn't have it. This conclusion is all right, if it is true, but it should never be reached on the basis of the test score. *Why* did he obtain such a low score? Let us say the test was one which depended heavily upon reading ability and our subject doesn't read. Now we all know that many poor readers are potentially bright. Maybe this child is bright. So you give him a non-reading, non-verbal test and he still does poorly. Is this proof positive that the child is dull? No, it may not be so. Most non-verbal tests utilize a symbol analogy and spatial relation method of measuring. Efficiency in this area depends heavily upon a visual imagery facility. Learning to read, with present methods of teaching, depends to a great extent upon the capacity to gain, retain and reproduce a visual image. One can be lacking in this capacity and, therefore, fail the tests and fail to learn to read, but still he may be bright. Perhaps William James, Thomas Edison and some others who were thought to be dull in grade school were deficient in this area but there is no question now of their high intellectual ability.

Using the Test Score

What we are saying to teachers is this: "Don't accept test scores provided by your school psychologists or testing personnel—make them prove the scores." What is the pattern of functioning of a pupil's intellect?

The pattern of functioning of an intellect probably needs some explanation. It might most easily be explained in test terms. Most intelligence tests regardless of their form are constructed so as to tap the several generally accepted areas of intellectual functioning. Usually scores are obtainable for each portion of a test battery. In some areas, a subject may do very well; in others, he may do poorly. To illustrate, let's say there is a two area test designed to measure a subject's general fund of information and his arithmetic ability. Suppose his information score, by itself, would yield an I.Q. score of 60 and his arithmetic alone yielded an I.Q. score of 120. His total I.Q. score is an average of the two which is 90. This score would say he possesses low average intellectual ability. It's not so—he's a bright and perhaps a potentially superior pupil. Something is interfering with his acquisition of general knowledge. This nicely opens a series of "why" questions

which should help the teacher to free his intellect for effective and efficient use in all areas of functioning. When a teacher knows the potential of his pupils, he can easily rise to the challenge of bringing it to realization. Equally so, if the test evidence (not the scores) and the teacher's evaluation of the pupil yield no shred of evidence for better than a borderline defective level of functioning, then the teacher can be spared the fruitless effort of trying to develop an inadequate intellect.

Make the tester prove the score. Insist that he describe the pupil's pattern of intellectual functioning. This understanding of a child's intellectual development, coupled with the teacher's great advantage of daily observations, will enable the teacher to arrive at those rare common sense solutions to many of the learning problems of his pupils.

CORDELIA L. STILES

Creative Use of Space, Time and Materials

Attention to children's needs and expanding interests can furnish many cues to creative living and learning in the classroom.

CHILDREN need to live in environments rich with opportunities. As they move about and explore, question and discuss, select and choose, doubt and believe, laugh and enjoy, make friends and construct objects, listen and observe, children show in various ways their desire and need for change in themselves and in things around them.

In recent years more attention has been given to providing new buildings with larger classrooms and more space inside and out-of-doors. Apparently, though, not enough effort has gone into the actual planning for the use of these extra spaces. This, of course, is not surprising because until very recently most school people did not exercise more than traditional concern regarding the use of school buildings and school grounds.

In many places today there are not enough classrooms to go around and often the school day seems too limited for dealing with the many areas of the curriculum with which each child who passes through the elementary school must have contact. It is, therefore, all the more necessary for those of us who are responsible and accountable for school programs to make certain that the content and experiences selected are those needed for the development of specific understandings and attitudes that will result in acceptable behavior in the children who are currently attending school. Educational leaders themselves must seek clearer insight if they would attempt to help children and teachers increase their understandings and improve their levels of performance. Almost any classroom of average size, if creatively used, may become a place of challenge and

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growth for children and others who share this environment. Such creative use of space in a school setting is something that derives through insight and hard work by teachers, children and parents after the careful selection of a problem that is real to everyone concerned. For many, a lack of recognition of problems is the greatest hindrance to creative work. For some, attempting to find a way to initiate change is tremendously distressing.

Some of the teachers of Charlotte began a search for their problems by taking an objective look at their schools while away from the home scene. They went to see what was being done in other school systems. Classroom teachers, supervisors, librarians and principals, some of them parents of school children, took trips to a number of systems in several states. At first the question, "Why is this trip being made?" was asked by many teachers. "We hear that Oak Ridge or the Parker District or some other place has an outstanding system or an outstanding program. We want to see what they have and observe the notable features," was the usual reply. Several school days and a weekend were sometimes spent by a group of about 30 or more volunteers in exploring and observing the situations. Some of the spontaneous questions related to problems back home were among the many queries asked by teachers on the field trips and answered by their hosts. While discussing the earlier field trips among themselves the teachers were heard asking: "Why don't our children express themselves as well and as freely as these?" "Why is the behavior of some of our children so different?" "It didn't seem at all like Friday . . . or Monday."

On returning from field trips they always discussed the working procedures observed and the apparent successes and failures manifested in the programs they had seen. They did not discuss either their own program or their own relationships on return. No recommendations of any kind were made for changes. However, in their minds and hearts some resolutions were undoubtedly made. Evidences of change began to appear in many rooms. Teachers volunteered suggestions for trial the next year. The suggestions were not based on observations from other systems but were new ideas born of problems encountered in their individual classrooms or schools.

There is something different about a classroom or a school where space, time and materials are used creatively. In the classroom all areas and all facilities are used by each child. There is learning in abundance and fun in learning. There is a feeling of ownership and of responsibility. There is a feeling of pride and of humility. There are opportunities for individual work and opportunities for cooperation. There are understanding, patience and sympathy. All these are wrapped into a series of experiences for the development of every boy and girl who lives there. There is not a single chair in the room to which Johnny must confine himself all day long because his group occupies a certain corner or a certain side of the room or a certain row of seats. Ray, Nita, Bob and Nell are not assigned seats in the back of the room because they are taller than all the other children.

There is neither a front nor a rear of the classroom that is used creatively. All areas are important. Certain sections or areas of the classroom may be designated as specific physical areas, according to

the work to be carried on and the materials to be located in each. No hallowed space is set aside for the teacher because as he works alternately as group leader and group member he, too, uses all spaces and all facilities. Of course, there should be a space in the room that is considered home for each individual, a place where he starts his day, stores his belongings, returns when necessary or convenient during the day and where he ends his day.

Sharing and cooperating, planning and evaluating should so highlight the days that there would be an absence of such cries as, "This is *my* chair!" "These are *my* crayons!" and the like. There would be such a general understanding and warmth of feeling that, as they work, children would naturally select the convenient chair or accept the vacant one, choose from the unemployed crayons or books and wait turns for those in use. Much studying of their own situations and planning by teachers, principals and others directly responsible for the curriculum must be done and some specific agreements reached for the security of everyone.

Space for Curriculum Content

As curriculum content is organized, teachers and children can help plan the best use of space by the class. A good discussion about some of the kinds of experiences to expect in specific curriculum areas, the size of the room and class, the existing equipment and materials and others that may be secured is an excellent beginning for an art lesson on suggested classroom arrangement. A discussion of the productions of the pupil-artists may result in the selection of a satisfactory arrangement.

About three years of experimentation and research were carried on in nine elementary schools in Charlotte before a currently acceptable plan of organization was found.

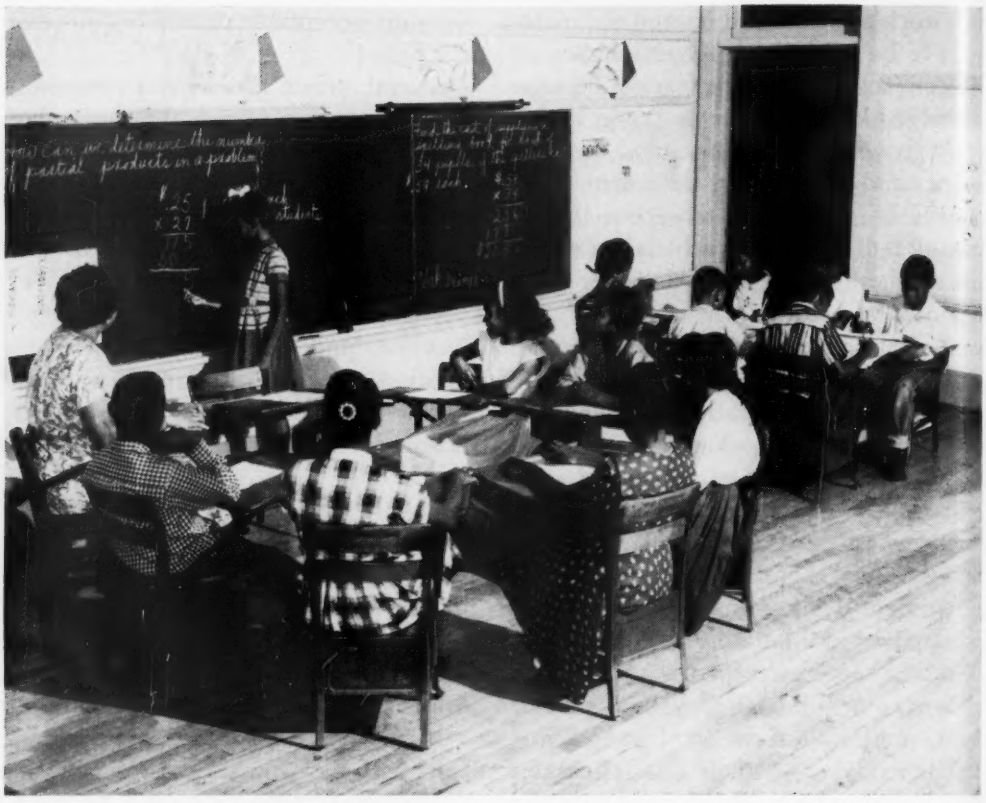
Several major problems were recognized: (a) how to use the curriculum to equip children with alternatives to unsocial behavior; (b) how to improve and speed up the mastery of skills; and (c) how to help the children make and complete plans and evaluate results.

A way of beginning had to be found. Teachers and principals of two new buildings accepted the challenge and others joined the project as interest mounted following the sharing of reports.

Initiating Area Work

When a teacher receives a group of children who have not yet participated in area work, he asks the children to sit where they wish. Friends usually decide to sit together. After a trial period the arrangement of furniture and materials is discussed in the light of class purposes. This first day must be successful for teacher and children. Many materials will need to be secured from the library, the homes of children and neighbors, from the woods and streams, from the merchants, the upholsterers, the lumber yards and mills, from anywhere usable and needed materials may be secured. The parents join in the search for materials because they have heard other parents tell how the growth of their children in so many ways is due to this manner of working. All available materials pertaining to the curriculum area are housed within the corresponding physical area to facilitate use and to conserve time. Since learning to share is one of the assets of area teaching, fewer materials of certain kinds are necessary in a classroom. For instance, no longer is it necessary for every child to have a box of crayons, a pair of scissors or one of everything.

Much discussion about how to live and



COURTESY CHARLOTTE CITY SCHOOLS, CHARLOTTE, N. C.

Teacher and children work together in the teaching area.

work in groups now takes place. The total class or a part of it, with the teacher's help, decides on a problem to be solved and certain features of the problem that may be undertaken by groups or individuals. Class members usually know that this work should and can be accomplished by them.

The teacher's plan indicates the areas in which each group will work and what each is expected to accomplish. The teacher must always know where each child belongs and what he plans to do. The teacher can be sure of this only when there is a written record. Although there is much small and large group work involved, a tremendous amount of the work is individual.

The children must have their plans because they must learn to depend upon themselves. They prepare record booklets and folders for their leaders, reporters, and for themselves. Storage places for these, and various kinds of record materials are selected or made—sometimes boxes or chart stands are prepared. In some instances parents who have space to spare at home will lend groups space for materials that must be stored for a while.

The first day for working in areas arrives. Everyone comes early because an unusual project is about to get under way. Plans are reviewed. Time is allowed for adjustment in the plans of those children who desire a change if possible. If physical adjustment cannot be made, some alternate agreement by pupil and teacher is reached. Sometimes space outside the classroom must be found. The

children can always tell where all of the unused spaces in the building are located. There are many spaces out-of-doors planned especially for extended classroom experiences. Democracy abounds in area work. The children learn democracy by living democratically.

The time for starting area work is known to all the children. The amount of time to be used is decided upon. The class is asked to move to its first area. Taking with them personal belongings, pupils move in various directions.

The Teaching Area

Into this area will go the children who need help with a specific skill (reading, writing, arithmetic, spelling, language, map study, or others). They might have been told by the teacher to come for the introduction of something new, for help on something that caused difficulty in other areas, or sometimes it might be a group that the teacher wants to work with for other reasons. Very often the children select the teaching area. It is desired that this group will remain small to encourage and facilitate individual participation and to enable the teacher to work with the children individually. Any group may be increased in size or the entire classroom or any portion of it may become the teaching area.

Creative Arts Area

Children go into this area for drawing, painting, story writing, writing of poetry, creative dancing, creating songs, crafts and industrial arts.

The research and listening area is used for seeking information.

COURTESY CHARLOTTE CITY SCHOOLS, CHARLOTTE, N. C.

Research and Listening Area

In this area it is expected that children will learn to search for themselves and find information on many subjects, and many points of view from a variety of books, magazines, tape recordings, disc recordings, newspapers, children's writings, pictures, films, slides, and by listening to their classmates or anyone else who comes in to talk with a group in this area or with the class as a whole.

Health and Science Area

Discussions, oral and written reports, independent and group study, experiments, demonstrations and most of the work related to the curriculum are carried out in this area.

The teacher starts working with the children in the teaching area as soon as every child is settled. At intervals the children in the teaching area are left on their own while the teacher goes to the other areas to observe progress and give help. Back in the teaching area, she proceeds with the planned work. Everybody works hard until the timekeeper in each group quietly calls time. Children and teacher then take a look at what has been done, evaluate a little and decide upon some recommendations for the next day. A few minutes for cleaning up are included in the originally allotted time. The groups move on to their next selected areas.

Groups do not always travel clockwise. The amount of movement by individuals and groups depends upon their maturity levels and the previous planning. Sometimes a group or certain individuals may remain in one area for two periods. This depends on the judgment of the teacher with pupil judgment taken into account. The various needs and choices of group members necessitate a wide selection of areas.

Although evaluation and planning are going on all through the day, the last period of the day is left open for groups and individuals to check with the teacher on plans for the next day, prepare materials for the next day, such as mixing paints, getting equipment ready for an experiment, notifying the librarian about their needs and preparing reports.

Two Teachers to a Classroom

In several schools two teachers have worked cooperatively with an extra large class in one classroom with outstanding results in area work.

By working in areas, the children learn to value time. They know that time is limited and that they are the losers when it is wasted.

More work can be accomplished in areas than in some of the other ways of working and more materials in all areas are dealt with by each child. According to observations and reports, home and school relationships have improved.

When venturing out in a new direction it is helpful to have leaders in education come in and spend a while helping by observing, leading in the evaluation and offering advice from a rich background of experience. Alice Miel, professor of education, Teachers College, Columbia University, served as consultant to the Charlotte program for three years.

ROSELLA ROFF

Grouping and Individualizing in the Elementary Classroom

Teachers and pupils work together to coordinate group activities that will lead to individual growth.

GROUPING in order to meet individual needs is a tremendous responsibility. The teacher must coordinate activities so that individual differences will be cared for. Each child must have an opportunity for belonging and for success. He must feel self-worth through his contribution to a successfully completed group effort. Such coordination and guidance call for a teacher with many capabilities. This teacher must be skilled in releasing ideas instead of drilling self-imparted or self-directed information; must be skilled in helping children use research technique in broad areas of learning instead of grinding through each book from cover to cover as a matter of habit; must be a keen observer of personalities to discover interests, desires, fears or physical inadequacies which may alter, enhance or impair individual progress, instead of holding each child to a rigid group standard of performance; and must be skilled in maintaining, through individual and group participation, an interesting, meaningful, and stimulating classroom environment instead of a teacher-dominated atmosphere.

This teacher must also be able to guide cooperative group planning, knowing what responsibilities the particular group members are capable of accepting in decision making, as determined by their physical, mental, social and emotional maturities. This guidance will of course include plans for individual and group evaluation during the working periods as well as final evaluation techniques. By no means of least importance, this teacher must be able to plan, execute and evaluate with the entire school staff, parents and community in solving problems of general interest instead of taking the proverbial bag of tricks to the classroom and closing the door. Such a role is frightening to many teachers who may be accustomed to definite, fixed periods and clock-like assignments. The transition, therefore, can only be made as the teacher feels comfortable in taking each new step away from a seemingly very secure position.

One handicap the teacher in the self-contained classroom faces today, if individual needs are to be adequately met, is class size. Meeting individual needs must of necessity come through successful interactions with the other individuals within the group. Possible interactions mount rapidly as class membership increases. Mathematically speaking, when two individuals are present one initial interaction is possible, when four individuals are present six initial interactions are possible, when 20 individuals are present 190 interactions are possible, when 30 children are present 435 interactions are possible, and when 35 children are present 595 interactions are

(Continued on page 174)

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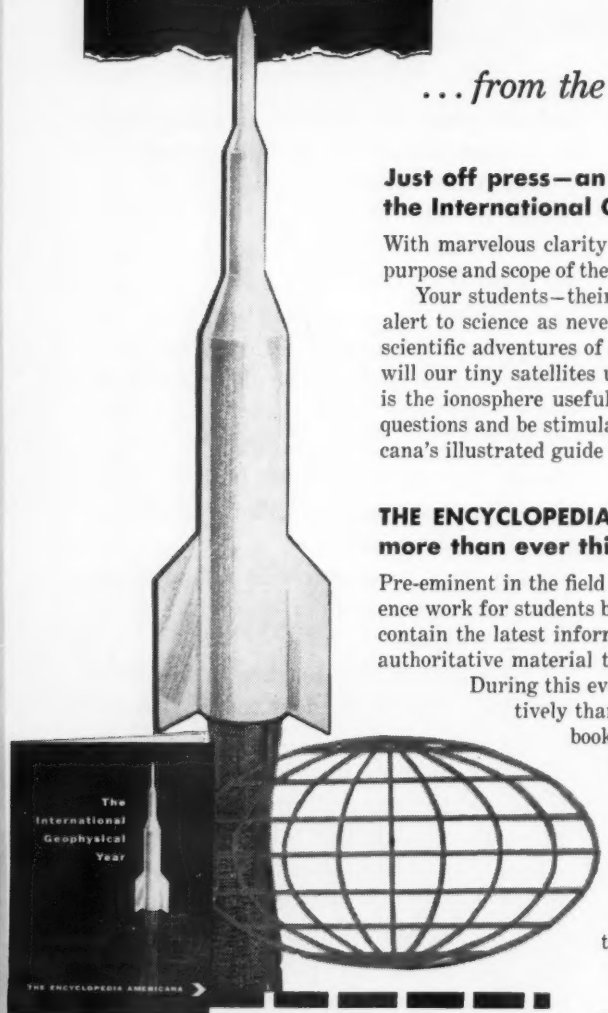

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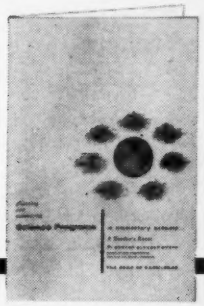

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(Continued from page 171)

possible. This means that the number of possible initial interactions is increased by 129 percent when a class has 30 children as compared to 20 and by 213 percent when a class has 35 children as compared with 20. This mathematical presentation may not be realistic or even desired if examined closely, but it points out the difficulty of meeting all individual needs within the group when a teacher must work with 30 or more children.

In spite of the handicaps that exist, most teachers spend a major portion of their lives trying to improve the learning process with each individual in their classrooms. Frustrations arise over and over again, however, when teachers' seemingly hopeless attempts to maintain a classroom atmosphere conducive to good mental health and maximum growth for each child, fall far short of their hopes and desires.

There are some things that could be done to release tension on the part of teachers and children as they attempt to satisfy their needs and desires. Class size could be reduced to 20 children; trained assistance could be provided for teachers to gather materials, keep records, make charts, and the like; the school year and the school day could be so structured that teachers would not feel the need for being in three places at one time; and most important, teachers could be taught the possibilities in such a Utopia.

The common reaction to such suggestions is, "You dreamer, you!" "What do we use for money?" or, most common of all, "You know that isn't possible." "Isn't possible" deals such a final blow to creative thinking and forward moving action that the individual usually gives up by saying, "What's the use," or is made to feel quite out of place for even suggesting such a wild idea.

Educators have taken many steps toward meeting individual differences effectively though they often hesitate even to think of the great changes which could make dreams a reality. First of all, school people sometimes parrot the fact that not all children can be treated in the same way. The following are some of the trickles that have come through in actual practice.

Very obviously the size and kind of furniture have rather generally been fitted to the size of the child and the kind of program that is carried out. The length of the school day has been varied according to grade level. Adjusting the length of "sitting periods" within the day to the "sitting-age" of the child has been rather generally practiced. Measuring and testing devices are being used more and more as aids in counseling rather than as final evaluations.

Developing Effective Groups

The McMicken Heights School, one of the Highline Public Schools, which lies immediately outside the southern boundary of the city of Seattle, Washington, has several practices which it follows in trying to develop effective groups within each self-contained classroom.

A very real attempt is made each spring to place the children for the following year in such a way that every room will have a full range of mental abilities, a high, average, and low reading group, and no more than an average range of personality problems. A balance between boys and girls is maintained as nearly as possible and a distribution of "problem" parents is attempted. Peer relations are also considered, for example, if the fact that Mary and Janice are inseparable pals is conducive to their

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individual development, they will be left in the same room; if not, they may be placed in different rooms. A balance of men and women teachers is rather consistently maintained from Grade 4 upward so that it is possible for the child without a father, for example, to be placed with a man teacher. Alternating the children between men and women teachers is considered when feasible. A room that, out of necessity, has two grades, should have fewer children per grade than the so-called "straight" classes and by and large should be freer from personality problems.

The "divided reading program" also has been tried recently in this school. This is a plan by which half the class comes at nine o'clock for skill teaching in reading for one hour. At ten o'clock the other half of the class joins those who are already there, for all other phases of the school program. Those who came at nine o'clock go home at two in the afternoon and the half that came at ten o'clock remains until three for reading skills. The individual attention that can be given and the relaxed atmosphere that is present have made this arrangement a favored one by teachers and pupils. Two parent evaluations have indicated that they too favor the help that can be given in this program. Tests revealed nine months' growth in reading word recognition during a seven month period, and eleven and one-half months' growth in paragraph reading during the same period of time.

It would be impossible not to mention parent-teacher conferences and their direct relationship to an individualized school program. Broad units of work, accurate records to be used for guidance purposes on all phases of a child's development, multiple-text selections, and special interest groups bear the same close relationship to this individualized program.

Much progress has been made but the real challenge always lies with school people who believe and act in a manner that says, "It can be done."

(Continued from page 160)

in operation is to be found in the high school at East Lansing, Michigan. Racine, Wisconsin, has also evolved a plan whereby the student carries more subjects and consequently has a program which fits his abilities and needs.

These three methods of attempting to improve the total high school curriculum[5] demand some daring in use of buildings and time. But those who have dared have produced programs which hold promise.

Other approaches are still in a proposal form and will take even more vision and courage to put into operation.

The individualization of instruction is still an educational frontier. If there were to be made an exhaustive study of present theory and practice, if from this study a new organization of theory were developed, if the new theory were tested on a broad base, and statistics gathered, and if an operational plan were developed and implemented, such a frontier would rapidly disappear.

[5] See also G. Robert Koopman's proposal in "A New Theoretical Approach to Secondary School Planning" in *The Nation's Schools*, December 1953; or "The Random Falls Idea" as described by Archibald B. Shaw in *The School Executive* for March 1956.

RICHARD M. BRANDT
and HUGH V. PERKINS

An In-Service Child Study Program

How effective is an in-service child study program? This question is posed—and answered—by these authors.

"MARJORIE, would you like to go downtown and shop this afternoon? I expect to leave as soon as I am finished with bus duty at four." Emily Williams spoke as she and her good friend and fellow teacher, Marjorie Prindle, stood in the warm California sunshine watching their children play during recess.

"I'm sorry, Emily, but our child study group meets this afternoon."

"Is child study really worth all the time you put in on it?" queried Emily.

"We feel that we're really beginning to understand the children we're studying. I sometimes wonder, though, why we spend three years on something that could be accomplished in one or two," answered Marjorie.

In New Jersey, John Buckley, the new principal of a twelve-grade consolidated school, asked these questions of the county helping teacher: "Where can we find out more about this in-service child study program which you described to our teachers? How effective really is it?"

During the school board meeting for discussing the budget, T. M. Winslow, board member and prominent merchant in Magnolia City, Alabama, remarked: "I know we are all impressed by reports which testify to the value of this child study program, but do we know whether this is the best program for our money?"

In recent years in-service programs for teachers have been initiated and carried on by an increasing number of school systems as a major effort toward improving their school programs. The efforts, time and money expended on these services are considerable. This growing trend, then, has caused educators and laymen alike to seek information which would enable them to judge their effectiveness. The results of 16 researches extending over a decade seem to provide tentative answers in evaluating one such program —an in-service program in child study.

In this one program for more than 15 years teachers, administrators and supervisors in school systems in various parts of the United States have organized themselves voluntarily into in-service groups for the purpose of studying individual pupils in their classrooms and through this to gain deeper insights into the causes which underlie behavior and development. This child study program is a three-year sequence of experiences in studying and interpreting children's behavior. It was developed initially through the work of the American Council on Education's Commission on Teacher Education at the University of Chicago beginning in 1939. Since 1947 the further development and expansion of this program has been carried forward by the Institute for Child Study of the University of Maryland and by educational institutions in other states serving teacher groups in those states.

In-Service Program

How effective, then, is this child study program in which each year approximately 5000 teachers have participated during the past 10 years? A report[1] of twelve independent researches and a cooperative project of four researches discusses the evaluation of this child study program in relation to: (a) its effects on teachers, (b) its effects on school organization and community relationships, (c) its effects on children, and (d) the factors and processes which influence teachers' learnings. All findings cited here are statistically significant.

Teachers Gain Skills and Understandings

Since participants in this program seek an understanding of behavior through writing and analyzing case records of students in their classrooms, the extent of the improvement in their abilities to write and interpret case record materials is of interest. Results of these researches show that participants do improve in these skills. Their writing becomes more objective and complete, and their analyses become more scientific. Only those teachers who have participated in the program for three years, however, achieve greater competence in using case records for recommending child guidance procedures.

Participation in child study increases teachers' scientific knowledge about human behavior and development. This is revealed by scores made on a standardized achievement test of human growth and development knowledge, by the scope of information contained in case records which indicates a greater knowledge of the dynamics which underlie behavior and development, by the expression of scientific concepts during child study meetings, and by the higher ratings which principals gave participants in the spring than in the fall on professional knowledge.

Most important, perhaps, is the change in the attitudes of teachers participating in this program. They tend increasingly to become warmer toward and more accepting of children. The longer they participate the more their judgments regarding the seriousness of children's behaviors tend to coincide with the judgments of mental hygiene authorities. In addition, these teachers become more approving of democratic classroom practices, their descriptions of the ideal teacher show more understanding of human behavior, and they become more accepting of themselves, others, and their environments.

Observations of teachers in their classrooms indicate that these teachers change generally, from year to year, as they participate in the program. They develop more positive ways of handling children, such as praising and encouraging, to replace less effective negative ways, such as reprimanding and isolating. Moreover, these teachers utilize more human development principles in their teaching as shown by their looking for many causes of behavior and their treating children as individuals. Finally, the classrooms of these teachers change toward becoming more democratic and less autocratic as they participate in this program. It was found, however, that teachers do not improve in their abilities to make specific recommendations for helping a child adjust to his situation until after they have

[1] Richard M. Brandt and Hugh V. Perkins, "Research Evaluating a Child Study Program." *Monographs of the Society for Research in Child Development, Inc.*, Vol. XXI, Serial No. 62, 1956.

RICHARD M. BRANDT is associate professor and HUGH V. PERKINS is professor of education, Institute for Child Study, University of Maryland, College Park.

completed three years of child study. This finding suggests that teaching practices change more slowly and are markedly evident only after teachers have had extensive experience in studying children.

School Organization and Community Relationships Change

The influence of child study on school organization and community relationships is evident in many ways in these researches. First of all, considerably more home visitation occurs among child study teachers than among those who do not participate. Human relationships tend to improve throughout the school system between teachers and pupils, teachers and other teachers, teachers and administrators, and schools and communities.

When a high percentage of teachers in a school system participate, child study becomes a major influencing factor toward diminishing the number of children who are not promoted to the next grade, the number suspended from school, and the number sent to the principal's office. There is evidence that a school system's participation in child study is a major factor which contributes to a more significant parent education program, a curriculum which is more related to the life experiences and needs of pupils, and an increase in referral of students to guidance workers for reasons other than poor attendance. Even teachers who do not participate in child study tend to increase their home visitation and seem more understanding of their pupils.

Children, too, Are Helped

Only two of the researches studied the effects on children of their teachers' participation in child study. One study indicates that as teachers in child study increase in their use of positive ways in handling children, these children in turn respond positively to these treatments. Teachers' participation in this program, however, does not seem to affect, adversely or favorably, the intelligence quotients and the reading and arithmetic achievements of their pupils. Since the experiences in studying children provided teachers in this program are not concerned directly with increasing pupil achievement in skill subjects, an expectation of significant gains in these areas by pupils of child study teachers may be unwarranted. If the increase in positive responses by these students is indicative of greater emotional security, social development, self-acceptance, and self-adjustment, then it is reassuring to note that, in addition to these gains, teacher involvement in child study does not lower the level of pupil achievement. This is an area where much more research is needed.

Other Effects of Program

The researches taken as a group indicate the changes in teachers occur continuously throughout teachers' participation in the program rather than as the result of specific curriculum procedures at each year level. There was general agreement, however, that maximum benefits from the program do not accrue until after three years' participation.

Leadership is a major factor influencing the learning that takes place in child study groups. More child development concepts, warmer and more objective attitudes toward children, more adequate substantiation of statements, and less tension are registered by child study groups where the leader is more supportive, clarifying, and helpful in dealing with problems than in those groups in which the leader reveals fewer of these qualities.

(Continued on page 186)

The Importance of People

Column Editor: Richard L. Henderson
Contributor: Stephen Abrahamson

Another of our friends, responding to our question, "What in Education burns you up?" is STEPHEN ABRAHAMSON. *Most of us in teaching yearn mightily for professional status, and we sometimes point enviously to the loftiness of the eminence achieved by the physician. And yet, says Steve,* can you imagine *as highly unlikely a scene as this taking place in the doctors' lounge of a hospital?*

Let's Get Professional

DR. HOLMES entered the room, crossed to an empty chair, sank in it dispiritedly, and sighed mightily. He took a moment to look around the room and noticed Dr. Harris idly leafing through a recent issue of *Life*. Over in the corner he saw Dr. Klein alternately staring out the window and glancing at a medical journal in his lap. The only other person in the room was reclining in a chair, his legs stretched out and his head at an uncomfortable angle.

"Boy," murmured Dr. Holmes, "am I bushed!"

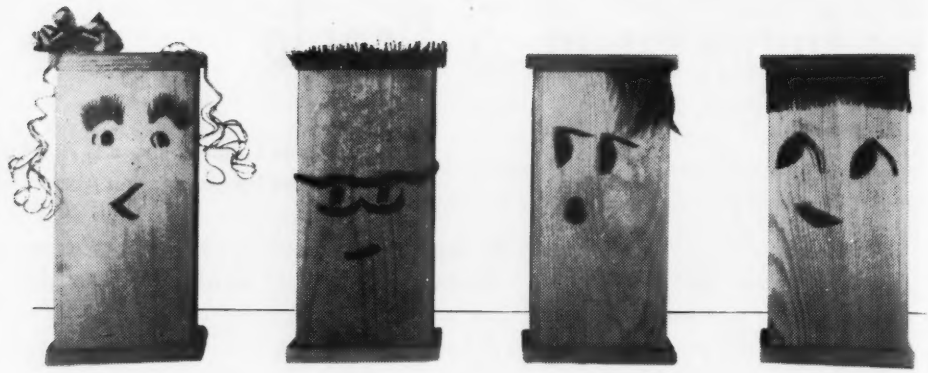
Dr. Harris looked over the top of the *Life* he was reading and Dr. Klein put aside the medical journal that had been open in his lap. Both assumed an air of listening as Holmes continued. "It's that miserable gang in Ward C. They just don't appreciate anything you do for them."

The two others nodded sympathetically. "What is it this time?" asked Harris.

"Well," responded Holmes, "have you noticed that patients today don't respond to treatment the way that patients used to? I can remember a time when every patient I treated appreciated what I did for him and began to get better almost immediately. Just compare that to patients today—why, some of those characters in Ward C look to me as if they never *will* get better—and after all I've done for them, too. What is the matter with patients today, anyway?"

The other two considered the question for a moment or two. "I'll tell you what I think," answered Klein. "I think they do it deliberately. They just don't care. You can't tell me that a simple bone graft shouldn't fuse within three months. Why that Sue Burkhardt—you remember her, don't you, Bill; she's the one who gave you trouble last year when she wouldn't respond to the X-ray treatments you gave her for that rash on her hands?" Klein paused long enough to get an affirmative nod from Harris. "That Burkhardt woman has been here several months and I can't see that she's getting any better at all."

At that moment, the recumbent figure stirred, looked at his watch, and groaned. "Another clinical conference in five minutes. God, I just live for the week ends! For the life of me I don't see what earthly good it does for us to have to sit and listen to the big-shots pontificate about routine cases." Reluctantly, he pulled



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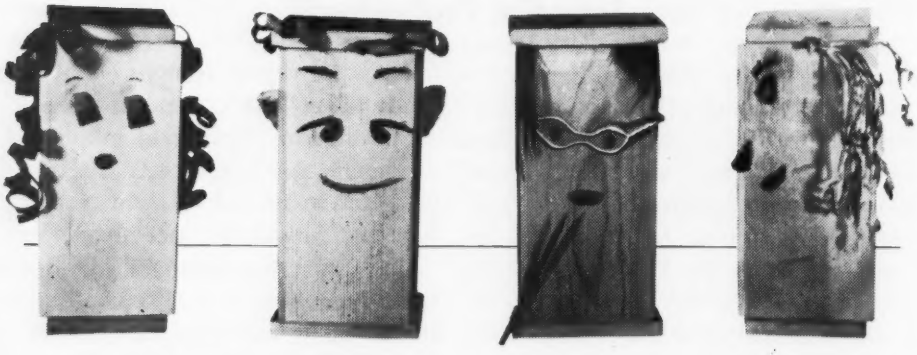

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himself out of the chair and walked dejectedly out of the door.

The others looked after him as he left. "Joe has been slipping, I think," said Harris. "He lets his patients get away with all sorts of things. That makes it bad for the rest of us when we try to maintain a little discipline and order. Why, the other day . . ."

At that moment the door opened and a youngish man with an intent look walked in. He smiled a tentative hello and, amid a waiting silence, looked through the journals on the coffee table, muttered, "That's the one," took it and walked out.

"That's the new fellow in pathology, isn't it?" asked Holmes.

"That's the guy," answered Klein. "A real eager beaver." He looked out of the window for a moment before continuing. "He'll get over it, though; they all do. I wonder why the hell the medical schools fill the boys with so much rot these days . . . just a lot of theory with no more idea of what a patient is really like or what a hospital is really like than I don't know what."

"Yes," chimed in Holmes, "then they come in here and try to tell us how to do things . . ."

"Or what's worse," interrupted Klein, "how some ivory-tower professor thinks they ought to be done!" All three nodded as Klein continued, "How is it possible for medical school professors to lose touch so completely and give out all that guff in their classes? Maybe," he added after a slight pause following the rhetorical question, "they never were in touch at all. It wouldn't surprise me to find that old Professor Halliday never has had an honest day's experience in his whole professional life. Their damned theories just kill me."

"Yes, and the way they insist that we ought to read this tripe." Harris waved a medical journal at the other two. "I suppose there's a lot of truth to that old gag, 'Those who can't practice medicine teach others to practice medicine and those who can't teach medicine write articles about medicine and the practice of medicine.'" The others chuckled wryly and appreciatively. "But to get back," put in Holmes, "to what I was saying when I came in, don't you agree with me that patients today just have no respect for the doctor?"

"There's no question about it," agreed Harris, "and after all of our sacrifices to become physicians; the years of study, the time we put in, the total disregard we're expected to have for our own lives, the nervous strain we're under. I sometimes wonder why the hell I ever stick it out."

"And there's something else: I made a special effort," Holmes persisted, "to get up to see my patients in Ward C yesterday but I was out on an emergency case

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all day. Do you know that they complained because I hadn't been there yesterday? Don't they have any consideration for us at all?"

"None at all," pronounced Klein, shaking his head dolefully. "I just don't see why their families haven't succeeded in teaching them some respect for physicians." He paused. Then he went on, "When I was a boy, our hometown doctor was the most respected and revered man in the town . . . but today, well!"

The others nodded sympathetically and Klein finished by saying, "Modern parents just don't teach their kids respect any more. Those patients in Ward C are a perfect example of loose up-bringing and what it can do."

"What are we going to do about all this?" asked Holmes.

"I'll tell you one thing we have to do," responded Harris. "I think we have to group the patients: those that do respond and those that don't. After all, we can't keep penalizing the patients that would respond if only they had the chance."

The others nodded. "Or," mused Klein, "maybe we have to go back to the time when not everybody got medical care—they didn't have problems like this in those days. Maybe we have to say that patients who don't respond to treatment will be excluded from the hospital . . . after a fair trial, of course," he added. "In that way, we can best serve the goals of our society, giving help to those who benefit by the experience. After all, a physician can do just so much in a day and it seems a shame to waste time on patients who don't appreciate it and who don't respond."

"Amen to that," put in Holmes. Just then, almost as if by common agreement, the three stood up. "Well, boys, I guess it's time—back to the old grind. Remember, only two more days this week." With that, they walked out of the room. On the door which closed behind them was lettered the sign:

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—STEPHEN ABRAHAMSON, *associate professor of education and director, Educational Research Center, The University of Buffalo, Buffalo, N. Y.*

Correction

In "The Importance of People" column in the October issue of EDUCATIONAL LEADERSHIP, the authorship of a review of a new book on social studies by Michaelis was erroneously ascribed to the editor of the *Bulletin* of the Council for Basic Education (Bulletin Number 12, July 1957).

The review was written by Dr. J. C. Hutchinson, chairman of history and social science at the New Jersey State Teachers College in Newark. The editor of EDUCATIONAL LEADERSHIP and the column editor of "The Importance of People" apologize for this error and are glad to publish this correction.

Curriculum Research

Column Editor: Alexander Frazier
Contributor: Hilda Taba

Educational Implications in the Concepts of Culture and Personality

IT IS RECOGNIZED today that a cross disciplinary approach is one fruitful way to raise significant questions to study in any area. Behavioral sciences, for example, recognize that anything like a full understanding of human personality and character structure requires the use of explanatory concepts of more than one discipline. It is understood also that this *use* implies more than mere borrowing of methods and concepts: it implies the use of a multiple approach to studying the problems of the individual and society.[9]

As an applied science, education needs to draw on other sciences for its foundations. Ideas about culture and personality are especially relevant, because education deals with individuals in culture, and serves the ends of a culture. New concepts about either are important to raise significant questions, to examine afresh the assumptions on which its methods and procedures rest, and to gain new perspectives about its role in the complex modern society.

Recent studies in this area have developed several new ideas of importance to education. First, it is rather generally assumed, that personality is in large part a product of the culture that surrounds it. These studies have made increasingly clear that individuals learn from their surrounding culture their values, emotional patterns, behavior standards, by internalizing the culture into their personalities so that they *want* to act as they *have* to act.[6] This process is variously called social learning, socialization and acculturation.

These concepts raise many questions worth pondering. First of these are the questions pertaining to variations in the life style of subcultures, such as social class, ethnic and racial variations, and the bearing of these variations on personality formation and on education. A large body of research and literature is devoted to spelling out these variations and their consequences on education.

Since many students in our schools come from groups which have only partly acquired the values which the school represents, what then are the discontinuities, anxieties and psychological threats that these students face in their acculturation to school? How do these conflicts affect their capacity and opportunity to learn? And what should the role of school be toward these students?[7, 10, 12]

Further, there is a suspicion that schools reflect but a part of American culture, namely the middle class. It enforces the values of the middle class, shapes its programs to meet the mental systems and ways of thinking which are most appropriate to this class and thereby, in effect, is culturally biased in both the measurement and cultivation of intelligence. While there is strong evidence that different environmental demands lead to acquisition of different perceptual and reasoning abilities in the measure-

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ment of intelligence and the methods of its cultivation, school people still trace it to unfolding of genetic and biological endowment and family lives.[2, 4] Can schools institutionalize cultural variations in procedures of curriculum making, of learning and teaching so as to allow all students to use their previous learnings, to reduce anxieties for those who undergo a sharp cultural transition from home to school, and to enhance learning opportunities for all?

And then, what about the nature of the culture in modern America, and its impact on character and personality? Several writers are pointing out that our contemporary urban culture develops a greater conformity than is desirable for an individual or for the society: the American society produces a character which emphasizes uncritical conformity, other-orientation, publicly attuned adjustment, and which essentially denies the importance of inner life, autonomy and individuality, spontaneous and private in personality development.[3, 6, 11, 13]

With this stress on conformity have come questions about the concept of adjustment in education. Does it mean largely docility and conformity: to teacher? to middle class values? to peer standards? to the popularity standards of peers? To what extent do schools permit individualization and autonomy of personality, and to what extent do even the devices of individualizing instruction involve conformity, submission to group approval to a so-called modal personality, or even what Fromm calls the "market personality"?[10, 7]

Many questions are raised by these analyses. Are these developments in conflict with what we think of as essentials of human nature? To what extent are the new developments in our society destructive of democratic values as we have tried to conceive these values? Is the

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current society shaping the types of personality that we cannot accept? And, if so, what is the school's role?

Can school be more than a refraction of current social trends? Can it help fill in gaps in social learning? Can it institutionalize counter cyclical thinking and develop programs that counteract social conformity, repression of individual autonomy? Can schools deal with and preserve heterogeneity in motivation, mental systems and creativity?

What in our current practice must we reconsider and reshape if education is to accomplish more than reflecting a current social trend or adding its forces to those abroad in the society?

—HILDA TABA, *professor of education, San Francisco State College, San Francisco, California.*

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(Continued from page 178)

Finally, these researches show that child study is effective with both teachers and administrators and that the amount of benefit to be derived from this experience is not significantly influenced by differences in age, amount of teaching experience, grade level taught, the amount or recency of academic education completed, marital status, or race. Of the teachers who do not complete the three-year program a majority feels positive toward the program.

The results of research indicate that this in-service program of child study has been generally effective. In addition, some principles have emerged from these results which may have an important bearing on the success of other in-service programs. An effective in-service program seems to be one which focuses on a real and significant problem of all teachers. Providing an organized sequence of experiences for achieving new insights and understanding, encouraging teachers and administrators to work together in groups, furnishing professional guidance through workshop experience and consultant services, and seeking continuously to evaluate and improve its procedures are factors which contribute to an effective in-service program.

Curriculum Bulletins

Column Editor: A. Harry Passow
Associate Professor of Education
Teachers College, Columbia University
New York 27, N. Y.

NOTE: The following faculty members of Teachers College, Columbia University, assisted in the preparation of this column by evaluating the materials in their areas of specialization: Professors MAURICE FOURACRE, MIRIAM L. GOLDBERG, JOHN L. HUTCHINSON, MARCELLA R. LAWLER, JAMES L. MALFETTI, and RAYMOND A. PATOUILLET.

• Cincinnati Public Schools. *Challenging the Able Learner. Primary Grades* (Curr. Bull. 301, 114 p.). *Intermediate Grades* (Curr. Bull. 401, 84 p.). Cincinnati, Ohio: the Schools, 1957.

The "try-minded" teacher will welcome these guides to program enrichment prepared by teacher committees. Generously spiced with descriptions of proven projects and illustrations of children's creativeness, the guides are framed within a clear, consistent rationale. Their broad scope includes suggestions for selecting learning activities in nine areas or subjects; devices for evaluating and recording progress; introductory materials and two-page bibliographies. For easy reading: concrete, lucid writing couched in classroom terms, attractive format, effective photographs.

• Arlington County Public Schools. *Suggestions for Working with the Gifted, Grades 1-12.* Arlington, Va.: the Schools, 1956. 56 p.

Like many other Arlington County publications, this guide results from a long-term effort by staff members who served on a Teachers Council on Instruction committee. The purposes of the publication are to organize the ideas and materials of previous Arlington study groups; to suggest techniques, organization, and activities; to provoke the thinking of those working with the gifted; to stimulate action research in this area; and to suggest methods of continuing evaluation and follow-up. The guide is organized around eleven questions such as: How Can the Gifted Be Identified? How Can the Gifted Be Helped in the Elementary School? Why Do Some Gifted Underachieve?

The discussion and the suggested practices are well conceived. The publication stresses approaches to teaching but skims over the content for implementing these techniques. The presentation is clear, simple and practical but more general than the Cincinnati materials. A brief bibliography of resources in the local professional library is included.

• St. Paul Public Schools. *Guide for Science 9-D Student Development Program* (Curr. Bull. No. 60, 50 p.). *Guide for Instruction in Mathematics 9-D Student Development Program* (Curr. Bull. No. 61, 68 p.). St. Paul, Minn.: the Schools, 1957.

This year's ninth graders are pioneering a Student Development Program for outstanding high school youth in St. Paul public schools. These two publications spell out the detailed objectives, content and suggested procedures in the areas of mathematics and science for pupils in the program. Although the Mathematics 9-D guide is organized around the usual se-

quence of units, the course differs in two important respects: emphasis is on teaching the associative skills of algebra and interwoven with the standard materials are a variety of enrichment topics (for example, historical notes, other base numbers, concept of proof, an introduction to the function concept and advanced work with radicals). The science guide stresses the development of many and varied experiences by going further and deeper into the content of science. Both publications refer to numerous resource materials. These bulletins differ from the Cincinnati and Arlington guides in their detailed suggestions for the two special courses which are part of a larger, experimental program still being evolved.

• City of Ottawa Public School Board. *Study on Gifted Children.* Ottawa, Ontario: the Board, 1956. 31 p.

In September 1954, a special committee was appointed to survey work being done in the Ottawa Public Schools to identify and provide for gifted children, to study programs in operation elsewhere, and to recommend additional practices for the school system. The committee decided to involve the entire professional staff in a series of discussions. This bulletin represents a summary opinion of classroom teachers "who thought through definite topics and who clarified their thinking on each topic by organized discussion with other experienced teachers at their grade level." The committee drafted specific recommendations after careful study of the replies received to seven questions and of related research. The report indicates a realistic, down-to-earth approach which provided opportunities for guided study and discussion — an approach which should prove attractive to other faculty groups.

• Euclid Senior High School. *Gifted-Child Program Annual Report* (August 1956-May 1957). Euclid, Ohio: the High School, 1957. 41 p.

George Wiley, coordinator of Euclid's Gifted-Child Program, reports here on an effort to present the "development of an idea from the planning table to actual operation" for the profit of other systems. The program in practice, the classes, methods, and materials are described. Some of the procedures, especially in administration and in parent relations, are interpreted clearly for other schools to study. In contrast, content and teaching methods emerge vaguely. In the last two pages titled, "Comments and Opinions," the coordinator departs from reporting and reflects on the insights acquired from the program.

• The May-June 1957 issue of *Curriculum and Materials* published by the Curriculum Council and Division of Curriculum Development, Board of Education of the City of New York, is devoted to the education of gifted and talented children. Articles deal with problems of identification practices in the elementary, junior and senior high schools; what parents can do; research on the gifted; and materials, aids, and other resources.

• Missouri State Board of Education. *A Guide for Physical Education in the Elementary School.* Jefferson City, Missouri: the Board, 1956. 285 p.

This is an inclusive guide for classroom teachers and school administrators concerned with the development of more effective physical education programs. Recognizing the limitations—untrained physical education teachers, inadequate facilities and supplies, and overcrowded classes—the guide suggests tools for meeting these problems. Chapters deal with organization and administration, teaching suggestions, analysis of skills,

primary grades, intermediate grades, teaching aids and evaluation of the program. Recommendations are in manageable portions, detailed and practical. Piano music is included for some activities plus references to many teaching materials. Space is provided at the end of each chapter for teachers' suggestions for revision. The single page on evaluation is less helpful than the rest of the publication.

• Mississippi State Department of Education. *A Suggested Program of Physical Education for Elementary Schools.* (Bulletin 143). Jackson, Miss.: the Department, 1956. 151 p.

As with the Missouri guide previously mentioned, the assumption is made that the elementary school teacher will direct the physical education activities of pupils. This bulletin is also directed toward classroom teachers and administrators, although it is not quite as comprehensive and inclusive as the Missouri publication. The instructional and extra-class programs are discussed briefly, together with a minimum supply and equipment list. Most of the publication is devoted to suggested activities by grades. Games, rhythms, and stunts are described. A few simple illustrations probably would have helped the classroom teacher visualize the descriptions.

• Board of Education, City of New York. *Health Teaching in Elementary Schools* (Curr. Bull. 1955-56 Series, No. 5). New York: the Board, 1956. 72 p.

This bulletin presents a course of study prepared to help elementary school pupils absorb information and habits necessary for healthful living. The material is simple, clear and easy to use, stressing a positive concept of health as a "state of physical, mental and emotional well-being which enables the child to achieve the greatest satisfactions in

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his personal and social life." Objectives, suggestions for teachers of grades K-2, suggested development for grades 3-6, learning experiences and evaluation are presented for each of ten areas or topics. The appendix contains selected teacher references, readings for pupils, and films for school use.

• Springfield Public Schools. *Driver Education (Senior High School Level).* Springfield, Mo.: the Schools, 1956, Revised 1957. 42 p.

To expand the driver training program, per-pupil cost had to be reduced, scheduling had to avoid taking students from other classes for behind-the-wheel training, and qualified teachers had to be found. After careful study, an Aetna Drivotrainer teaching device was added to the existing program of driver education. This bulletin argues the merits of this device as a teaching aid that materially reduces time spent in a dual-control car and, consequently, reduces the cost-per-pupil expense of driver education. Driver education is now a regular part of the high school curriculum and is required of all tenth grade students. The bulletin outlines an 18-session first-aid course and a three-phase (classroom, Drivotrainer, and dual-control car) driver education program. The case for the Drivotrainer needs further research and study. The inclusion of a first-aid unit as part of driver education seems questionable as does the advisability of using the dual-control car during each of the three twelve-week periods.

• State Department of Education, Division of Vocational and Adult Education. *A Review of Physiological and Psychological Changes in Aging and Their Implications for Teachers of Adults.* Bulletin 71G-1, 3rd Edition. Tallahassee, Fla.: the Department, 1957. 31 p.

The findings from 46 studies are summarized in this composite review of the physiological and psychological changes which occur as part of the normal aging process. The implications for teachers of adults constitute the last section. Research indicates that there is a retention of power to learn but a slowing up in rate; that there is a wide range of individual differences in age, ability, previous education, and interests of adults which influence adult teaching; and that the sum total of all changes due to the aging process leads to an appalling lack of proper adjustment on the part of a large portion of the aged population. The fact that people can learn throughout life has important meanings for educational planning.

• Board of Education, City of New York. *Cerebral Palsy Units. Part I: Report of the Superintendent of Schools, 1955-56.* New York: the Board, 1957. 48 p.

Thea S. Klein, Principal of PS 135, Manhattan, here discusses both her own school's therapy and teaching unit for the rehabilitation and education for children with cerebral palsy as well as programs in all five boroughs. Extensively illustrated with striking photographs, this attractive publication describes in detail the staff and services, program and objectives of the units which are designed to supply and coordinate the educational, recreational and therapeutic activities for these children. The description of a day in the school life of Marie, a cerebral palsied child, is particularly appealing. For a picture of what one system is doing to minister to the differences of these children, this report is graphic.

• Minneapolis Public Schools. *Living and Learning in the Elementary Schools.* Minneapolis, Minn.: the Schools, 1949. Revised and reprinted 1956. 152 p.

An increased understanding of chil-

dren, a clearer concept of the goals of education, and better planning and organizing of the teacher's own program are the purposes of this volume. In the section titled, "Children Grow," a column of implications for adults and for teachers parallels a column on the facts about child development. Some of the problems children may have are analyzed and followed by suggestions for helping. There are usable tips for room arrangement and good classroom environment, a plan of work for within the classroom, cooperation with the home, and time schedules. An unusual feature is a set of suggestions for combination grades. The appendix contains listing of school policies and procedures pertaining to children and a section titled, "Security for Teachers," directs the teacher to resource materials and points up the responsibilities of teaching personnel.

• Western New York School Study Council. *A Catalog of Curriculum Bulletins.* Buffalo: the Council, University of Buffalo, 1957. 31 p.

In connection with the annual New York State ASCD conference, an exhibit was arranged of recent curriculum materials and related publications prepared by public schools and noncommercial state and private agencies. A catalog listing the rather extensive collection of materials in the exhibit has been prepared and is now available at 50 cents per copy. The publications are grouped by subjects and areas which are arranged alphabetically and can be referred to readily in the table of contents.

• Maryland State Department of Education. *Planning for Effective Learning: Science.* Baltimore: the Department, 1956. 16 p.

This publication is one of a series issued by the Department for the Superintendents Committee on Curriculum and Supervision. In June 1955, this statewide committee, representing all education levels and assisted by consultants in various fields, met to judge the progress Maryland had made in curriculum development during the preceding decade and to make suggestions for future improvement. This bulletin is less of a syllabus and more of a stimulus to be used by local staffs planning improvements in their own programs. Eighteen general characteristics of a good science program are listed and then amplified by examples of effective practices in the elementary and secondary school. Two sample units are included as well as a short list of selected references. This brief bulletin, if used as intended, might "serve as a springboard for future curriculum improvements in Maryland."

• Mifflin County Public Schools. *Mental Health in the Classroom.* Curriculum Report No. 6. Lewistown, Pa.: the Schools, 1956. 35 p.

Following a year of periodic meetings, a county-wide committee prepared this report "to help other teachers who encounter mental health problems in the classroom." Lacking a table of contents or introductory material other than a definition of mental health and seven facts about mental illness, this report leaves the reader to gauge for himself the framework or intent. Articles by committee members deal with such topics as the importance of a healthy personality and of mental health in the classroom, juvenile delinquency, discipline, and how art can contribute to good mental health. Ten pages are devoted to "Nineteen Child Problem Situations Related to Mental Health." Some of these situations tend to be oversimplified and might have been improved if illustrative cases had been used instead. The one-page bibliography at the end contains several

errors in listing of authors' names and does not refer to the many pamphlet materials available. The pamphlet is noteworthy chiefly because these classroom teachers have made an effort to think about a deeply serious problem.

Other Materials Received

Arkansas Department of Education. *Guidance Services in Arkansas Public Schools.* Little Rock: the Department, 1956. 12 p.

Connecticut State Department of Education. *The Relationship of Public and Non-Public Schools in Connecticut; A Status Study.* Res. Bul. #6, 1955-56. Hartford: the Department, 1956. 56 p.

Davidson County Schools. *Moral and Spiritual Values, Grades 1-6.* Nashville, Tenn.: the Schools, 1957. 160 p. $2.00.

Kansas State Department of Public Instruction. *A Curriculum Guide for Elementary Schools.* Topeka, Kansas: the Department, 1956. 192 p.

Maine State Department of Education. *Through Maine on Printed Paths.* Augusta: the Department, 1956. 58 p.

Maryland State Department of Education. *Foundations of Public Education in Maryland.* Baltimore: the Department, 1956. 36 p.

New Mexico State Department of Education. *A Handbook of Guidance Services.* Guidance Bull. No. 15, 1956. 24 p.

Board of Education, City of New York. *Health Guidance and Health Service in Secondary Schools.* (Curr. Bull. 1955-56 Series, No. 8). New York: the Board, 1956. 68 p.

Ohio Department of Education. *A Handbook for Health Education Teachers.* Columbus: the Department, 1956, 56 p.

Philadelphia Public Schools. *A Guide to Mathematics, Grades 7-8.* Philadelphia: the Schools, 1957. 140 p.

Shorewood Public Schools. *An All-Faculty Workshop Report on Pupil-Teacher Participation in Planning.* Shorewood, Wis.: the Schools, 1956. 34 p.

ASCD CONFERENCE

Seattle, Washington • March 2-6, 1958

Speakers for the General Sessions during ASCD's Thirteenth Annual Conference will be:

DR. ARTHUR W. COMBS, *Professor of Education and Psychology, University of Florida, Gainesville.*

DR. FRANK P. GRAHAM, *United Nations Representative for India and Pakistan.*

DR. HOWARD MCCLUSKY, *Professor of Educational Psychology and Consultant in Community Adult Education, University of Michigan.*

DR. C. C. TRILLINGHAM, *County Superintendent, Los Angeles County Schools.*

Curriculum News

Column Editor: Robert S. Harnack
School of Education, University of Buffalo
Buffalo, New York

OUR GROWING economy creates an expanding need for skilled manpower. Such a demand can only be met by enabling each individual to use his capacities to the utmost. Young people, as individuals, need the best possible education, as well as guidance in selecting a career. To this end, the United States Department of Labor has issued the third edition of the *Occupational Outlook Handbook*, which contains employment information on major occupations. With the present handbook will come the initiation of a new periodical, *The Occupational Outlook*, which will be issued four times annually to provide a flow of up-to-date information between editions of the handbook. The handbook, besides providing a reappraisal of employment outlooks in all industries and occupations, includes new chapters on significant fields such as the physical and biological sciences and the rapidly growing chemical and atomic energy industries. The 1957 edition, Bulletin No. 1215, is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price $4.00.

• While on the subject of meeting individual differences and the use of information from the Government Printing Office, a new conservation and teaching aid, "Materials to Help Teach Forest Conservation," has just been released by the Forest Service, U.S. Department of Agriculture. Teachers may get this list of teaching aids free by writing to the Forest Service, Washington 25, D.C.

• The September issue of *Instructional News* from the Denver Public Schools provides an interpretation of the development of moral and spiritual values. This subject illustrates the significance and importance of individual differences, and the difficulties that education staffs face as they try to translate this subject area for all pupils into learning for distinct individuals. The Denver Public Schools indicate, through various activities in school life, that values for pupils become their own when each pupil is responsible for his own behavior: when one is free to be himself; when one makes choices among alternatives, each of which has consequences not only for himself but for others; when one realizes that there is no safety for anyone without safety for all; when experience, real or vicarious, reveals life with new significance; and when effort is sustained because of intrinsic worth rather than external reward. All this seems excellent and certainly points to curriculum planning by education staffs to spell out in black and white the specific objectives, classroom activities, and materials of instruction necessary to do the job.

• Do teachers know and understand individual pupils in a class? How can we tell? In order to study these questions, approximately 120 teachers and their 3000 pupils in various sixth, eighth, and tenth grades of eight school systems comprising the Cooperative Research Project of the Western New York School Study Council, University of Buffalo, partici-

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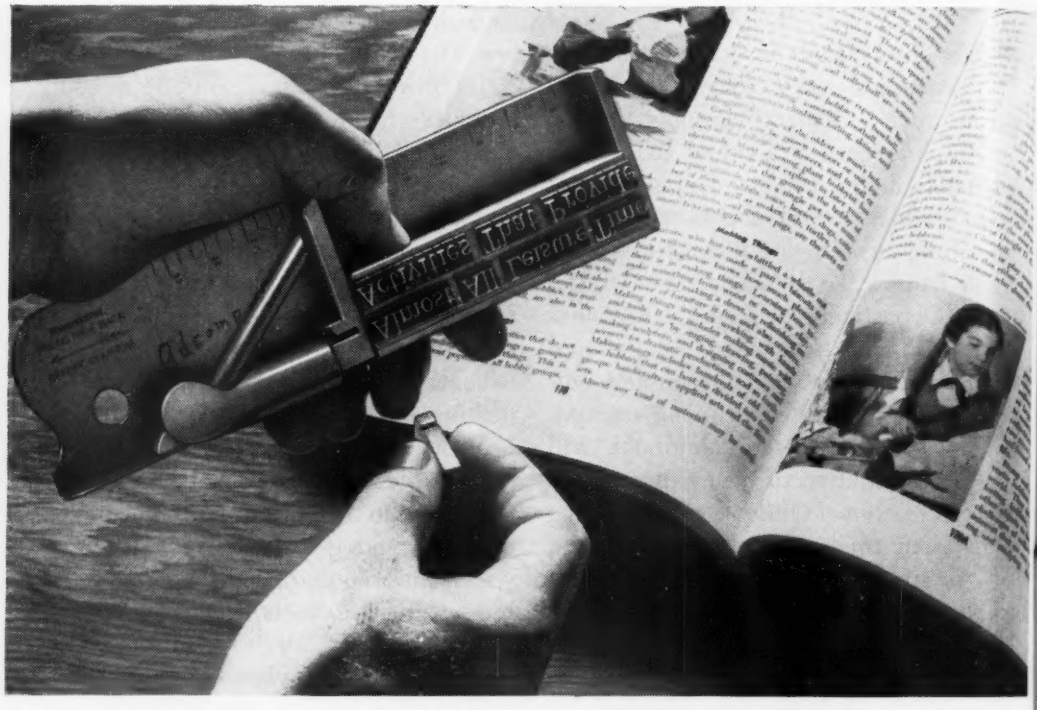

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pated in a study designed to appraise the efficacy of the "response-prediction" technique as a means of measuring the accuracy of a teacher's "understanding" of his class, or his "social perception." This study examined two issues: First, insofar as the degree to which teachers understand their pupils is considered to be meaningfully related to teacher-effectiveness, can an instrument be developed to measure the accuracy of a teacher's understanding of his class? Second, what personal characteristics of teachers and pupils are associated with the accuracy of a teacher's understanding?

In light of the statistical analysis reported in the study (price $3.00), the data suggest that various personality and biographical characteristics of teachers are related to the accuracy of a teacher's understanding of his class; regarding marital status, there is a relationship between the accuracy of social perception and predisposition towards marriage; regarding grade level differences, that interest in pupils, rather than *time spent with* pupils, influences the accuracy of perception; the significant differences associated with experience suggest that motivation, incentive or interest in teaching is also related to the accuracy of understanding. The data regarding socioeconomic status and sex suggest that certain similarities in the personal characteristics of teachers and pupils are associated with the accuracy of social perception. Finally, the various reliability estimates of the inventory used suggest that the response-prediction technique can be a reliable method of assessing the accuracy of a teacher's understanding of his class.

• The problem of identifying and educating above-average high school students will be the subject matter for a conference this month in Washington, D.C., according to an announcement by William G. Carr, executive secretary of the National Education Association. Timed as one major wind-up activity of the NEA's Centennial Year, the conference hopes to bring together information on the work currently being done by school systems to challenge and help gifted students. Conference participants include persons who are now actively engaged in improvement projects, experts and specialists in such fields as psychology, educational testing, and the major curricular fields of the colleges and secondary schools.

• Announcements of a booklet and a yearbook look interesting enough to pass on to readers. The booklet is titled *The Flexible School,* distributed by the Department of Elementary School Principals of the NEA. School principals are urged to avoid fixed classroom patterns, and prepare for the vast educational changes that will be necessary if their schools are to meet their obligation to our rapidly changing society. The yearbook is titled *Annual Epidemiological and Vital Statistics,* 1954, published by the World Health Organization (WHO) and available for $10.00 from International Documents Service, Columbia University Press, 2960 Broadway, New York, N.Y. These vital statistics, necessary for pupils and teachers concerned with a study of health problems, give a picture of the population of each country, its growth, the illnesses from which it suffers, as well as the extreme diversity that exists in other conditions.

• Rensselaer Polytechnic Institute at Troy, New York, reports numerous activities and experiments in its monthly newsletter aimed "Toward More Effective Teaching." Colleges and universities concerned with curriculum planning for surging college enrollments might bene-

(Continued on page 203)

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Letters to the Editor

National Library Week

New York City
October 20, 1957

Editor, *Educational Leadership*

Dear Sir:

I should like to direct attention to a service which can be rendered by each ASCD member in his own community. This service is to cooperate with National Library Week which occurs on March 16-22, 1958, and which all communities are asked to observe. It is sponsored by the National Book Committee, Inc., and the American Library Association.

The committee developing this program has come up with the following facts:

1. The habit of reading is not keeping pace with increased education, leisure time or high disposable income.

2. Sixty percent of American adults did not read a book, other than the *Bible*, during 1955.

3. Half of the adults in this country live within a mile of a public library—but only one-fifth of them visit it.

4. New standards of public library service have just been issued by the American Library Association; they need community attention and acceptance.

5. Recruiting trained personnel is a major problem for all libraries; more efforts are needed to attract young people to the profession. The shortage is handicapping library expansion.

6. Soaring enrollments mean that school and college library facilities must be expanded.

ASCD has an Ad Hoc Committee cooperating with the National Book Committee. Each of us can cooperate on the local level with library groups and others organizing local activities for National Library Week, March 16-22, 1958. The National Book Committee has agreed to furnish interested ASCD'ers with a special flier which tells of this campaign. This can be secured by addressing National Book Committee, Inc., 20 West 40th Street, New York 18, New York.

Sincerely yours,
WILLIAM H. BRISTOW, *Director*
Bureau of Curriculum Research
Public Schools, New York City

Significant Books in Review

Column Editor: George W. Denemark
Contributors: Rowannetta S. Allen
Victor B. Lawhead
Orval L. Ulry

Supervision as Co-operative Action. *By Muriel Crosby.* *New York: Appleton-Century-Crofts, 1957.*

Muriel Crosby in her book, *Supervision as Co-operative Action,* has delved into the richness of her background of experience and brought forth many helpful ideas and suggestions for educational leaders who are attempting to translate theory into practice. From the beginning her readers are assured that the action which she describes was developed with real people through actual supervisory experiences.

The author, while acknowledging that there may be an opposing point of view, supports the thesis that supervisors are special people with an important function in present day education. She describes modern supervision as a service to the teacher and states that it is not "a retread of an old worn-out function; it is a new service founded on research into the ways people learn and the dynamics of human relationships." To perform this service for teachers the supervisor must bring to her job "a wealth of knowledge about children and curriculum, an understanding of the role of education in modern living, skills in working effectively with people, and an aptitude for creating situations which make it possible for teachers to help themselves solve their problems."

The early chapters of this book present in interesting and carefully chronicled detail the work of Amy Slowe, helping teacher in the Alden School District, as she works with new teachers, both experienced and inexperienced, helping them to identify their problems and to plan a proposed solution. By sharp contrast in supervisory procedures is the brief but striking appearance in the narrative of Mrs. Fast, "a supervisor in the next school district."

Miss Crosby has attempted to epitomize through Mrs. Slowe the patient, friendly, human relations approach to more effective teaching. Mrs. Slowe believes firmly that a teacher becomes a better teacher by becoming a better person. As much as she desires to transform individuals under her supervision into extremely successful teachers, Mrs. Slowe realizes that, in her own words, "You cannot hurry growth" even in teachers. Growth must occur through "doing something with" them rather than "doing something to" them. Research has shown that teacher attitude is a major factor in bringing about desired changes in instruction, she contends, and this knowledge must affect procedures in supervision.

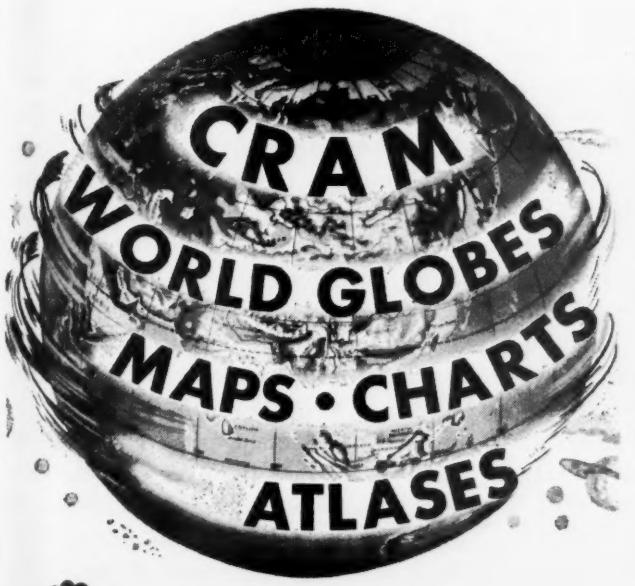
The major portion of the book is devoted to a discussion of the usual and the unusual techniques of modern supervision: conferences, observations, demonstrations, curriculum development, action research, and the like. The author has included a wealth of practical helps for beginning supervisors and for experienced supervisors, who have caught a

vision of the possibilities of a human growth and development approach to supervision. There are excellent guides prepared by Mrs. Slowe for the use of beginning teachers and an aid which might be used in analyzing the problems of a beginning teacher. Also included are Charts I and II which were developed and used in Wilmington, Delaware, as a basis for building a curriculum to meet the needs of children.

Other items which may be of special or particular interest to readers are: a guide to the evaluation of the quality of learning characteristic of a group of children; a guide for the use of principals in self-analysis; an interpretation of the self-contained classroom; suggestions for improving articulation between different levels of a school system; an excellent account of how a teacher used grouping as an instructional procedure. Chapter 11 gives a detailed description of a system-wide curriculum development program extending over a period of three years, led by the supervisor and the Elementary Curriculum Planning Committee. As a result of this experience Miss Crosby repeats convincingly, "One of the greatest stimulants to creative teaching emerges through participation in continuous curriculum development."

The author devotes nearly a third of the book to a careful treatment of the recurring concerns and issues in supervision. Among these are: working more closely with teacher preparation institutions; looking critically at the tools the teacher uses; grouping children; clarifying the roles of the different individuals and their responsibilities in administration and supervision; working with parents; and finally, evaluating learning.

The final chapter provides study aids and a comprehensive list of selected references for students of supervision.



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—*Reviewed by* ROWANNETTA S. ALLEN, *assistant superintendent of schools—Elementary Education, Public Schools, Prince George's County, Maryland.*

Developing a High School Core Program. ***By Lucille L. Lurry and Elsie J. Alberty.*** *New York: The Macmillan Company, 1957.*

To the limited number of helpful books devoted to core programs of the secondary schools, *Developing A High School Core Program* is a welcome addition. The diverse professional backgrounds of the authors provide a fortunate blending of experience from the public schools and from the experimental school of a large university. Miss Lurry's work as Supervisor of the Core Program in Prince George's County, Maryland, places her in a position to report accurately and authoritatively on the problems and possibilities facing local staffs in core program development. The leadership in this field by the Ohio State University School, toward which Mrs. Alberty has contributed richly, is reflected in the basic pattern of development and in the numerous examples of good practice. Those familiar with the core movement will recognize that this volume, as an effective restatement of his basic point of view, places in high relief the influence of Harold Alberty on a generation of curriculum workers whose graduate studies have profited by his direction.

What the authors have set out to do is to show that a core program can be designed with a content that, while encompassing the broad values of good general education, can also provide for teaching that is psychologically sound and sensible in respect to what we know about the adolescent and the way he learns. The effectiveness with which this is done is due in large measure to the clear delineation at the outset of a dozen or more Problem Areas proposed as the scope of a good core program. Succeeding chapters develop the implications of such a design for the organization of resource guides, the choice of learning units and the definition of roles of special-interest teachers. The account of the learning unit, "What Are the Major Problems Facing American Education Today?" offers a pointed example of this intermeshing of design, materials and practice. Here the core teacher, drawing heavily upon a resource guide, *Problems of Education in American Democracy*, plans cooperatively with her class a series of experiences related tangibly to a number of basic problem areas. Few writers in the field of curriculum have been able to relate descriptive accounts and proposals for classroom practice so effectively to an over-all curriculum design.

In accomplishing these things the book necessarily omits material appropriate to those core programs where the structure is oriented to the integration of subject matter or where no pre-planned structure is evidenced. A chief difficulty in writing about core programs is to do so in a manner which makes clear the kind of core program under study. This difficulty is met in this volume by a clear preference for a program that "consists of broad, pre-planned problem areas defined by the faculty in terms of the common personal-social needs, problems, and interests of adolescents in this society." Such a view is necessary if, to use the authors' words, "we intend anything really serious in the way of core program development." Viewed from the position that core consists of a number of allied

disciplines this book will appear to suggest a radical departure from conventional practice. On the other hand, by those who take a skeptical view of any curriculum structuring in advance of the on-going classroom process, the book's emphasis upon a definable scope of problem areas will be contested.

The book is perhaps least successful in meeting current arguments that present school trends, including the core movement, place undue emphasis upon group identification and membership. To take a single instance the reader might consider the learning units described in the chapter, "A Core Program in Action in the Classroom." A glance at the activities, conducted primarily by student committees, suggests a heavy commitment to group experience. To vitiate a possible emphasis on the "Organization Pupil," documentation of pointed examples where the learner was a "unifier" of his experience as well as a "participant" in it would have been helpful. However, these are marginal comments on a single chapter, for one finds in the resource guides and elsewhere a sufficient balance of learning activities that are characteristically individual enterprises offering high potential for self-fulfillment and creativity.

—*Reviewed by* VICTOR B. LAWHEAD, *associate professor of education, Ball State Teachers College, Muncie, Indiana.*

Teaching Science in the Secondary School. *By R. Will Burnett.* *New York: Rinehart & Company, Inc., 1957.*

It is refreshing, indeed, to find a text which openly, consistently and conclusively draws upon the contributions of research, experience, and modern psychological theory in searching for solu-

coming soon

LEADERSHIP IN ELEMENTARY SCHOOL ADMINISTRATION AND SUPERVISION

Albert H. Shuster
Ohio University

Wilson F. Wetzler
University of Arizona

In clear, practical terminology this text provides the student of school administration or the practicing principal with an understanding of true leadership, and guides him to the development of the competencies demanded by the elementary school administrator's position. With strong emphasis on the principal's complementary roles of administrator and supervisor, the authors examine the areas of administrative behavior which are essential to the effective performance of the principal's duties, and the areas of supervision with which the elementary school principal must be familiar in order to become a competent educational leader.

In addition to a complete coverage of job analysis and specific suggestions for building an in-service education program, the authors offer practical aids and guides to stimulate administrative self-direction in solving local problems.

A 1958 Publication.

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tions to critical problems of science teaching.

Against a backdrop of perpetual and persistent problems of social, technological and pedagogical origin, Burnett hastens to establish goals of science teaching in today's schools. These goals are: (a) college preparation, (b) functional knowledge, (c) critical thinking, and (d) emotional and ethical maturity. Next, and logically so, these goals are carefully synthesized in terms of "the old" and "the new" types of science teaching. These two concepts are clearly defined and widely separated yet the author remains mindful of the truism that perhaps no one program at any one time can be accurately labeled as completely one or the other type. Thus, the first section is appropriately labeled, "The Redirection of Science Teaching."

The second part of this text is concerned with certain foundations of modern science teaching. At the very great risk of becoming labeled "sheer duplication" or dismissed by the notion that "We've had this," a careful, detailed résumé of the history of science teaching in the United States is presented. This broader treatment quickly narrows as the author presents an exciting and fruitful application of research findings as a solid basis for modified practices in the teaching of science. Following closely is a psychological basis for modern science teaching including various ramifications —purposive nature of learning, concomitant learning, the "disagreeable task" myth, transfer of learning and motivation. This skillful blending of research findings and psychological principles as applied to the teaching of science in the secondary school leaves little to the imagination. The "new type" teaching is, unmistakably, the only type.

The prospective science teacher's impatient thirst for firsthand know-how in science teaching is satisfied, perhaps at long last, in part three of this text. Chapter six in this section discusses a new pattern of course offerings and after carefully identifying certain guide-post criteria, Burnett gives (page 162) a recommended general program of science for a typical high school. This program represents an interesting innovation from the usual high school pattern of science courses. Two years of science centered in problems pertinent to general education values are suggested. One year of the required sequence might be in the life sciences and the other year in the physical sciences. Even more forward-looking is the thought that the work for both years might be developed on the basis of functional units without regard to the distinction between physical and biological topics. In addition to this sequence of science of a general nature Burnett would have every school also offer intensive instruction in specialized science such as physics, chemistry, botany, zoology (or perhaps advanced biology) on an elective basis.

In the next several succeeding chapters come, in rapid order, many specific suggestions for classroom teaching including ways to provide functional experiences through laboratory, lecture, discussion, evaluative, and audio-visual activities.

Part IV of the text presents separate chapters written by experienced teachers illustrating the problem approach to science teaching. The units described on a this-is-how-we-do-it basis include, among others, a unit on atomic energy, and a unit on mental health.

This text is concluded with a critical analysis of the profession of science teaching, its present status and future hopes. The major national organizations and societies whose work is directed toward the advance of science teaching are described. Each science teacher is

urged to find a "professional home" with such organizations as he feels he can support both financially and through personal efforts.

Because of the very excellent research findings and psychological know-how combined in developing an unusually clear and functional philosophy for effective science teaching this book should find its way to the desk of every science teacher interested in continued professional growth. This text, also, should be extremely useful to a prospective science teacher as he struggles to develop a working philosophy and attempts to implement this philosophy with methods, techniques and skills for day-by-day classroom teaching. While every student will not peruse the entirety of the rather lengthy portion of this text devoted to foundations, historical development and psychological bases, its inclusion is justified perhaps by the few who will find in it an abundance of personal enrichment.

—Reviewed by ORVAL L. ULRY, *assistant director of Summer Session, College of Education, University of Maryland, College Park.*

(Continued from page 195)

fit from reading this newsletter. The general program at RPI is known as "Project Reward." Some of the areas reported on are: production of instructional films, television activities, and audio-visual projects; experiments in class size in teaching mechanics; honors course in analytical chemistry; and visual teaching in engineering drawing. Numerous faculty committees have been formed to study such items as: class size, experiments in science instruction, and teacher effectiveness in mechanical engineering. There are indications that "Project Reward" will bring some interesting results and observations. Probably most encouraging is the curriculum planning being practiced by teachers in higher education.

• Following are two announcements of awards:

Eunah Temple Holden, international executive secretary, the Delta Kappa Gamma Society, announces that the Delta Kappa Gamma Society, International, Educator's Award of $1,000.00 will be given for the most significant contribution to education written by a woman between April 1956 and April 1, 1958. The work must have been printed prior to April 1, 1958, in order to be entered in competition. This is the seventh award offered by the Society.

The Reverend Joseph M. McKee, Centennial Coordinator of Shattuck School, Faribault, Minnesota, announces that as part of the observance in June 1958, of the 100th anniversary of the founding of Shattuck School, awards will be made to the 100 living persons who have made outstanding contributions toward the advancement of secondary education through public, parochial, and/or independent schools. Any person living in the United States or territories is eligible for the awards except anyone having a past or present connection with Shattuck. Nominations may be made by sending the name and address of the person making the nomination and the name and address of the person nominated together with a brief statement of the reason for consideration to the Centennial Office, Shattuck School, Faribault, Minnesota.

From the Editor

Executive Committee meeting. Convening in Washington, D. C., November 1-3, the ASCD Executive Committee considered many matters related to the ongoing program and services of the Association. One high point was a tea attended by national ASCD members in the District of Columbia. At this time the group took action looking toward becoming an affiliated unit of ASCD. Another fine occasion during the meeting period: a dinner at the Kennedy-Warren Hotel at which the ASCD professional staff members were guests of the Executive Committee. Other guests were GEORGE and JUNE DENEMARK and MARY E. LEEPER.

Cornerstone. At an impressive ceremony on November 17, in Washington, D. C., the cornerstone of the new building of the National Education Association of the United States was slipped firmly into place. Many members of the NEA staff, their families and friends, and representatives of state education associations and other organizations were present for this ceremony, one of the culminating events of the NEA Centennial Year.

Congratulations. To *Atlantic Monthly*, the journal that for a century has served with distinction as a spur and a conscience to liberal and intellectual America. Felicitations to the journal, its publishers, and its editor, EDWARD W. WEEKS.

Chicago conference. "The American High School: Challenge of the New Era" was the theme of a conference attended by approximately 1000 educators and lay citizens, October 28-30, in Chicago. The meeting was sponsored by the University of Chicago in collaboration with the National Citizens Council for Better Schools. Of those sessions which your editor attended, several were especially memorable: the lectures by HENRY STEELE COMMAGER, REUBEN G. GUSTAVSON, JAMES B. CONANT, and ROBERT S. GILCHRIST.

You were represented. During the past month and a half by MARGARET GILL at the National Citizenship Conference held in Washington, D. C.; the Kansas ASCD meeting; the Nebraska ASCD meeting (also attended by ROBERT S. GILCHRIST); the Maryland DSCD meeting; the National Core Conference in Philadelphia; the Florida Annual Supervisors Conference (also attended by WILLIAM ALEXANDER); the Arizona ASCD meeting and the Pennsylvania DSC meeting. RODNEY TILLMAN represented you at ASCD meetings in West Virginia, Montana, Virginia and Michigan. He also attended the National Safety Congress and met with the General Arrangements Committee for the 1958 ASCD meeting in Seattle. ARTHUR W. FOSHAY represented you at ASCD meetings in Kentucky, Missouri and at five fall conferences in Oregon, as well as at a sectional meeting of CSSA.

Season's greetings. As is our custom and privilege, the members of the Association's headquarters staff extend to ASCD members and to all the readers of this journal all good wishes for a joyful holiday season and for a prosperous and happy new year.

—ROBERT R. LEEPER, *editor*, EDUCATIONAL LEADERSHIP.

ASCD Publications Currently Available

YEARBOOKS

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